



PART I

Conceptual Framework

2. The Measurement of External Debt: Definition and Core Accounting Principles

Introduction

2.1 This chapter begins by updating the definition of external debt so that it is consistent with the concepts of *1993 SNA* and *BPM5*. The definition of external debt remains based on the notion that if a resident has a current liability to a nonresident that requires payments of principal and/or interest in the future, this liability represents a future claim on the resources of the economy of the resident, and so is external debt of that economy. Such an approach provides a comprehensive measure of external debt that is consistent across the range of debt instruments regardless of how they may be structured. The focus of the definition remains on gross liabilities—that is, excluding any assets.

2.2 A common theme throughout the *Guide* is that analysis of the gross external debt position of an economy requires information that, as far as possible, is compatible with related data series both within and among countries. Compatibility enhances the analytical usefulness and the reliability of data by allowing interrelationships with other related macroeconomic data series to be examined and comparisons across countries to be undertaken on a clear and consistent basis. Also, compatibility encourages the rationalization of collection procedures, through the integration of domestic and external debt data (thus lowering of the costs of data production). For these reasons, this chapter introduces accounting concepts for the measurement of external debt that are drawn from the *1993 SNA* and *BPM5*.

Definition of External Debt

2.3 The *Guide* defines gross external debt as follows: *Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of principal and/or interest by the debtor at some*

point(s) in the future and that are owed to nonresidents by residents of an economy.

Outstanding and Actual Current Liabilities

2.4 For a liability to be included in external debt it must exist and be outstanding. The decisive consideration is whether a creditor owns a claim on the debtor. Debt liabilities are typically established through the provision of economic value—that is, assets (financial or nonfinancial including goods), services, and/or income—by one institutional unit, the creditor, to another, the debtor, normally under a contractual arrangement.¹ Debt liabilities can also be created by the force of law,² and by events that require future transfer payments.³ Debt liabilities include arrears of principal and interest. Commitments to provide economic value in the future cannot establish debt liabilities until items change ownership, services are rendered, or income accrues; for instance, amounts yet to be disbursed under a loan or export credit commitment are not to be included in the gross external debt position.

Principal and Interest

2.5 The provision of economic value by the creditor, or the creation of debt liabilities through other means, establishes a principal liability for the debtor, which, until extinguished, may change in value over time. For debt instruments alone, for the use of the

¹In many instances, such as cash purchases by households in shops, economic value is provided against immediate payment, in which instance no debt liability is created.

²These liabilities could include those arising from taxes, penalties (including penalties arising from commercial contracts), and judicial awards at the time they are imposed. However, in some instances an issue will arise about whether a government has jurisdiction to impose such charges on nonresidents.

³These include claims on nonlife insurance companies, claims for damages not involving nonlife insurance companies, and claims arising from lottery and gambling activity.

principal, interest can (and usually does) accrue on the principal amount, resulting in an interest cost for the debtor. When this cost is paid periodically, as commonly occurs, it is known in the *Guide* as an interest payment. All other payments of economic value by the debtor to the creditor that reduce the principal amount outstanding are known as principal payments.

2.6 For long-term debt instruments, interest costs paid periodically are defined as those to be paid by the debtor to the creditor annually or more frequently; for short-term instruments (that is, with an original maturity of one year or less), interest costs paid periodically are defined as those to be paid by the debtor to the creditor before the redemption date of the instrument.

2.7 The definition of external debt does not distinguish between whether the payments that are required are principal or interest, or both. For instance, interest-free loans are debt instruments although no interest is paid, while perpetual bonds are debt instruments although no principal is to be repaid. In addition, while it may normally be expected that payments will be made in the form of financial assets, such as currency and deposits, the definition does not specify the form in which payments need to be made. For instance, payments could be made in the form of goods and services. It is the future requirement to make payments, not the form of those payments, that determines whether a liability is a debt instrument or not.

2.8 Also, the definition does not specify that the timing of the future payments of principal and/or interest need be known for a liability to be classified as debt. In many instances, the schedule of payments is known, such as on debt securities and loans. However, in other instances the exact schedule of payments may not be known. For example, the timing of payment might be at the demand of the creditor, such as non-interest-bearing demand deposits; the debtor may be in arrears, and it is not known when the arrears will actually be paid; or the timing of a payment may depend on certain events, such as the exercise of an embedded put (right to sell) or call (right to buy) option. Once again, it is the requirement to make the payment that determines whether the liability is debt, rather than the timing of the payment. So, the liabilities of pension funds and life insurance companies to their nonresident participants

and policyholders are regarded as debt of those institutions because at some point in time a payment is due, even though the timing of that payment may be unknown.

Residence

2.9 To qualify as external debt, the debt liabilities must be owed by a resident to a nonresident. Residence is determined by where the debtor and creditor have their centers of economic interest—typically, where they are ordinarily located—and not by their nationality. The definition of residence is explained in more detail later in this chapter and is the same as in *BPM5* and the *1993 SNA*. Clarification of the determination of residence for entities legally incorporated or domiciled in “offshore centers” is provided.

Current and Not Contingent

2.10 Contingent liabilities are not included in the definition of external debt. These are defined as arrangements under which one or more conditions must be fulfilled before a financial transaction takes place.⁴ However, from the viewpoint of understanding vulnerability, there is analytical interest in the potential impact of contingent liabilities on an economy and on particular institutional sectors, such as government. For instance, the amount of external debt liabilities that an economy potentially faces may be greater than is evident from the published external debt data if cross-border guarantees have been given. Indeed, the *Guide* encourages countries to set up systems to monitor and disseminate data on contingent liabilities, as is discussed in more detail in Chapter 9.

Relationship with Instruments in the 1993 SNA

2.11 From the viewpoint of the national accounts, the definition of external debt is such that it includes all financial liabilities recognized by the *1993 SNA* as financial instruments—except for shares and other equity, and financial derivatives—that are owed to nonresidents. Shares and other equity are excluded because they do not require the payment of

⁴The exclusion of contingent liabilities does not mean that guaranteed debt is excluded, but rather that the guaranteed debt is attributed to the debtor not the guarantor (unless and until the guarantee is called).

principal or interest. For the same reason, financial derivatives, both forwards and options, are excluded—no principal amount is advanced that is required to be repaid, and no interest accrues on any financial derivative instrument. Both forwards and options are described in more detail in Chapter 3. Nonetheless, an overdue obligation to settle a financial derivatives contract would, like any arrears, be a debt liability because a payment is required. Monetary gold and IMF special drawing rights (SDRs) are financial assets included in the 1993 SNA but are not debt instruments because they are, by convention, assets without a corresponding liability.

Core Accounting Principles

2.12 This section considers the concepts of residence, time of recording, valuation, the unit of account and exchange rate conversion, and maturity. Unless otherwise specified, these concepts are applicable throughout the *Guide*.

Residence⁵

2.13 Debt liabilities of residents that are owed to nonresidents are to be included in the presentation of an economy's gross external debt position. Debt liabilities owed to residents are excluded. Hence the definition of residence is central to the definition of external debt. In the *Guide*, as in the *BPM5* and the 1993 SNA, an institutional unit—that is, an entity such as a household, corporation, government agency, etc., that is capable, in its own right, of owning assets, incurring liabilities, and engaging in economic activities and in transactions with other entities—is a resident of an economy when it has its center of economic interest in the economic territory of that country.

2.14 To determine residence, the terms “economic territory” and “center of economic interest” also require definition. A country's economic territory consists of a geographic territory administered by a government; within this geographic territory, persons, goods, and capital circulate freely. Economic territory may not be identical with boundaries recognized for political purposes, although there is usually a close correspondence. For maritime countries, geographic territory includes any islands subject to the same fiscal and monetary authorities as the mainland. Interna-

tional (multilateral) organizations have their own territorial enclave(s) over which they have jurisdiction and are not considered residents of any national economy in which the organizations are located or conduct affairs; although employees of these bodies are residents of the national economy—specifically, of the economies in which they are expected to maintain their abodes for one year or more.

2.15 An institutional unit has a center of economic interest and is a resident unit of a country when, from some location (dwelling, place of production, or other premises) within the economic territory of the country, the unit engages and intends to continue engaging (indefinitely or for a finite but long period of time) in economic activities and transactions on a significant scale. The location need not be fixed as long as it remains within the economic territory. For statistical purposes, the conduct or intention to conduct economic activities for a year or more in an economic territory normally implies residence of that economy. But the one-year period is suggested only as a guideline and not as an inflexible rule.

2.16 In essence, an institutional unit is a resident of the economy in which it is ordinarily located. For instance, a branch or subsidiary is resident in the economy in which it is ordinarily located, because it engages in economic activity and transactions from that location, rather than necessarily the economy in which its parent corporation is located. Unincorporated site offices of major construction and similar projects, such as oil and gas exploration, that take over a year to complete and are carried out and managed by nonresident enterprises will, in most instances, meet the criteria of resident entities in the economy in which they are located, and so can have external debt (although the claims on the office by the parent might well represent an equity investment).⁶

2.17 The residence of offshore enterprises—including those engaged in the assembly of components manufactured elsewhere, those engaged in trade and financial operations, and those located in special zones—is attributed to the economies in which they are located. For instance, in some countries, banks, including branches of foreign banks, that are licensed to take deposits from and lend primarily, or

⁵See also *BPM5*, Chapter IV.

⁶The classification of parent claims on unincorporated branches is discussed in more detail in Chapter 3, in the section on direct investment.

even only, to residents of other economies are treated as “offshore banks” under exchange control and/or other regulations. These banks usually face different supervisory requirements and may not be required to provide the same amount of information to supervisors as “onshore” banks. Nonetheless, the liabilities of the offshore banks should be included in the external debt statistics of the economy in which they are located, provided that the liabilities meet the definition of external debt.

2.18 Similar issues can arise with “brass plate companies,” “shell companies,” or “special purpose entities” (SPEs). These entities may have little physical presence in the economy in which they are legally incorporated or legally domiciled (for example, registered or licensed), and any substantive work of the entity may be conducted in another economy. In such circumstances, there might be debate about where the center of economic interest for such entities lies. The *Guide* attributes external debt to the economy in which the entity, which has the liabilities on its balance sheet, and so on whom the creditor has a claim, is legally incorporated, or in the absence of legal incorporation, is legally domiciled. So, debt issues on the balance sheet of entities legally incorporated or domiciled in an offshore center are to be classified as external debt of the economy in which the offshore center is located. Any subsequent on-lending of the funds raised through such debt issues to a nonresident, such as to a parent or subsidiary corporation, is classified as an external asset of the offshore entity and external debt of the borrowing entity.

2.19 In some economies, separate identification of the gross external debt (and external assets) of resident “offshore banks” and other “offshore entities” is necessary because of the potential size of their liabilities relative to the rest of the economy.

2.20 In contrast, a nonresident may set up an agency in the resident economy usually to generate business in that economy. So, for instance, a resident agent may arrange for its parent foreign bank to lend funds to a fellow resident (the borrower). Unless the agent takes the transactions between the borrower and the creditor bank onto its own balance sheet, the borrower records external debt and not the agent. This is because the debtor/creditor relationship is between the lending bank and the borrowing entity, with the agent merely facilitating the transaction by bringing the borrower and lender together. If the agent does

take the transactions onto its balance sheet then it, not the final borrower, should record external debt from its parent foreign bank.

2.21 A regional central bank is an international financial organization that acts as a common central bank for a group of member countries. Such a bank has its headquarters in one country and usually maintains national offices in each of the member countries. Each national office acts as central bank for that country and is treated as a resident institutional unit in that country. The headquarters, however, is an international organization, and thus a nonresident from the perspective of the national central banks. However, for statistics relating to the economic territory of the whole group of member countries, the regional central bank is a resident institutional unit of this territory.

Time of Recording⁷

2.22 The guiding principle for whether claims and liabilities exist and are outstanding is determined at any moment in time by the principle of ownership. The creditor owns a claim on the debtor, and the debtor has an obligation to the creditor.⁸ Transactions are recorded when economic value is created, transformed, exchanged, transferred, or extinguished.

2.23 When a transaction occurs in assets, both financial and nonfinancial, the date of the change of ownership (the value date), and so the day the position is recorded, is when both creditor and debtor have entered the claim and liability, respectively, in their books. This date may actually be specified to ensure matching entries in the books of both parties. If no precise date can be fixed, the date on which the creditor receives payment or some other financial claim is decisive. For example, loan drawings are entered in the accounts when actual disbursements are made, and so when financial claims are established, and not necessarily when an agreement is signed.

2.24 For other transactions, when a service is rendered, interest accrues, or an event occurs that creates a transfer claim (such as under nonlife insurance), a debt liability is created and exists until payment is made or forgiven. Although not usual, like interest, service charges can accrue continu-

⁷See also *BPM5*, Chapter VI.

⁸Thus, the *Guide* does not recognize any unilateral repudiation of debt by the debtor.

ously. Although equity securities are not debt instruments, dividends once they are declared payable are recorded in *other debt liabilities* until paid.

2.25 The *Guide* recommends that interest costs accrue continuously on debt instruments, thus matching the cost of capital with the provision of capital. This recommendation is consistent with the approach taken in related international statistical manuals and in commercial accounting standards (see Box 2.1). For interest costs that accrue in a recording period, there are three measurement possibilities: (1) they are paid within the reporting period, in which instance there is no impact on the gross external debt position; (2) they are not paid because they are not yet payable (referred to hereafter as “interest costs that have accrued and are not yet payable”)—for example, interest is paid each six months on a loan or security, and the gross external debt position is measured after the first three months of this period—in which instance the gross external debt position increases by the amount of interest that has accrued during the three-month period; and (3) they are not paid when due, in which instance the gross external debt position increases by the amount of interest costs that have accrued during the period and are in arrears at the end of the period.

Interest costs that have accrued and are not yet payable

2.26 Traditionally, external debt-recording systems have not recorded as external debt interest costs that have accrued and are not yet payable. At the time of publication of this *Guide*, the preference of many debt compilers remains to continue to exclude such interest costs from the gross external debt position. This is for two reasons. First, for countries with a few large external loans, borrowed at irregular periods, that have annual or semiannual interest payments, significant variation over time in the debt stock could arise from the inclusion of interest costs that have accrued and are not yet payable. Second, from a practical viewpoint, for some countries the inclusion of such interest costs in the gross external debt position could take some time to implement because it could involve a significant change to their present compilation system.

2.27 It is thus recognized that the recording of interest costs accruing on deposits and loans may have to follow national practices and be classified under

other debt liabilities. Nonetheless, for those countries that can do so, the *Guide* recommends including interest costs that have accrued and are not yet payable as part of the value of the underlying instruments. That is, the accrual of interest costs not yet payable continuously increases the principal amount outstanding of the debt instrument until these interest costs are paid. This is consistent with the approach in the *1993 SNA* and *BPM5*. However, in order to maintain comparability of external debt statistics across time and across countries and to identify the variation introduced by the timing of recording of interest costs that have accrued and are not yet payable, the *Guide* requires that countries recording such interest costs complete the memorandum item identifying the sectoral and maturity breakdown of the item (as described in Chapter 4, paragraphs 4.8 and 4.9).

2.28 When bond securities (including deep-discount and zero-coupon bonds), bills, and similar short-term securities are issued at a discount (or at a premium), the difference between the issue price and its face or redemption value at maturity is treated, on an accrual basis, as interest (negative interest) over the life of the bond. When issued at a discount, the interest costs that accrue each period are recorded as being reinvested in the bond, increasing the principal amount outstanding. This approach can be described as the capitalization of interest; it is not a holding gain for the security owner. When issued at a premium, the amount accruing each period reduces the value of the bond.

Arrears

2.29 When principal or interest payments are not made when due, such as on a loan, arrears are created (a short-term liability that is included under *other debt liabilities*). But to ensure that the debt is not counted twice, there is a corresponding reduction in the appropriate debt instrument (for example, a loan). So, the nonpayment, when due, of principal and/or interest results in a reduction in the amount outstanding of the appropriate instrument, such as a loan, and an increase in arrears, leaving the external debt position unchanged. *Arrears* should continue to be reported from their creation—that is, when payments are not made⁹—until they are extinguished, such as when they are repaid, rescheduled, or forgiven by the creditor.

⁹In some instances arrears arise for operational reasons rather than from a reluctance or inability to pay. Nonetheless, in principle such arrears, when outstanding at the reference date, should be recorded as arrears.

Box 2.1. The Choice of a Recording Basis: The Case for Accrual Accounting¹

Meaning of the Term “Recording Basis”

In the context of a macroeconomic statistical system, recording bases are defined mainly according to the time at which transactions are recorded in that system. Alternative recording bases are possible because for many transactions there can be a time lag between the change of ownership of the underlying item, the due date for payment, and the actual date for payment. Also, given the nature of the different recording bases the transactions and positions captured by them will also differ. Thus, an important consideration in choosing a recording basis is the information intended to be conveyed in the statistical system. For external debt statistics, the intention is to provide users of these data with a comprehensive measure of external debt liabilities at the end of the reporting period, and to allow them to identify the types of flows during the reporting period that affect the size and composition of these liabilities. Consequently, the *Guide* introduces the use of the accrual recording basis, for reasons explained below.

Main Types of Recording Bases

Three types of recording bases have most commonly been used in macroeconomic statistical systems: cash recording; due-for-payment recording; and accrual recording. In practice, variations on each of these main bases are often found.

With *cash recording*, transactions are recorded when a payment is made or received, irrespective of when the assets involved change ownership. In its strictest form, only those flows that involve cash as the medium of exchange are included (that is, cash inflows and outflows). The stocks recorded at the end of the reporting period in such a system are restricted to cash balances. But in practice, cash reporting basis is often modified to include other balances such as debt balances. In other words, when cash is disbursed on a debt instrument, an outstanding debt stock is recorded, and subsequent repayments of principal, in cash, reduce that outstanding debt.

A *due-for-payment recording* basis records transactions when receipts or payments arising from the transaction fall due, rather than when the cash is actually received or paid. The due-for-payment basis can be considered as a modification of the cash basis. In addition to cash balances, the due-for-payment basis

¹This box draws on Efford (1996), which was prepared in the context of the development of the *Government Finance Statistics Manual*, IMF (2001).

takes into account amounts due or overdue for payment. Typically, a due-for-payment basis of recording will record debt stocks on the basis of the redemption amount of the outstanding liability—the amount due for payment at maturity.² This amount may differ from the amount originally disbursed for a variety of reasons, including discounts and premiums between the issue and redemption price, repayment of principal, and revaluation of the debt due to indexation. Also, this recording basis will capture debt arising from some noncash transactions, such as arrears and the assumption of debt from one entity to another (for example, to the government).

On an *accrual recording* basis, transactions are recorded when economic value is created, transformed, exchanged, transferred, or extinguished. Claims and liabilities arise when there is a change of ownership. The accrual reporting basis thus recognizes transactions in the reporting period in which they occur, regardless of when cash is received or paid, or when payments are due. Gross external debt positions at the end of a reporting period depend on the stock of gross external debt at the beginning of the period, and transactions and any other flows that have taken place during the period.³ The accrual recording basis records what an entity owes from the perspective of economic, not payment, considerations.

The different approaches of the three recording bases can be illustrated by the example of a loan, on which interest costs are paid periodically until the loan is repaid at maturity. The initial loan disbursement would be recorded in all three recording bases at the same time—that is, when the disbursement is made. All three systems would record a debt liability.⁴ However, on an accrual reporting basis, interest costs are recorded as accruing continuously, reflecting the cost of the use of capital, and increasing the outstanding amount of the debt liability during the life of the loan, until the interest costs become payable. But on a cash or due-for-payment basis, no such increase would arise.

Interest payments on the loan and repayment of principal at maturity are recognized at the same time in all three systems, pro-

²This is the approach taken in the IMF's *A Manual on Government Finance Statistics* (1986); see p. 217.

³In the *1993 SNA*, economic flows in financial assets and liabilities are limited to those financial assets and liabilities for which economic value can be demonstrated or observed.

⁴On the basis of the descriptions above of the cash, due-for-payment, and accrual reporting bases. For each reporting basis, there can be modifications of approach.

2.30 If debt payments are guaranteed by a third party, and the debtor defaults, the original debtor records an arrear until the creditor invokes the contract conditions permitting the guarantee to be called. Once the guarantee is called, the debt payment is attributed to the guarantor, and the arrear of

the original debtor is extinguished, as though repaid. Depending on the contractual arrangements, in the event of a guarantee being called, the debt is not classified as arrears of the guarantor but instead is classified as a short-term *other debt liability* until any grace period for payment ends.

Box 2.1 (concluded)

vided that these payments are made in the reporting period in which they are due. But if payments are not made when due, arrears would be recorded on the due-for-payment and accrual recording bases, but not on the cash basis (although in practice, a cash-based system might well be modified to include arrears). In the due-for-payment and accrual recording bases, a debt payment would be recorded as though made by the debtor, with an associated increase in (short-term) liabilities (arrears). Arrears are reduced when the payment is actually made. On a cash basis, no transactions would be recorded until the (overdue) payment is actually made; no arrears are recorded.

Thus, from the above example it can be seen that the accrual recording basis will record transactions at the same time as or before the cash and due-for-payment bases, and the due-for-payment basis would record transactions at the same time as or before the cash basis. For positions, on a cash basis, only amounts disbursed in cash and repaid in cash are taken into account; on a due-for-payment basis, amounts disbursed and repaid in cash are recognized along with any outstanding liabilities arising from noncash transactions—such as arrears; the accrual recording basis, in contrast, recognizes all existing liabilities regardless of whether cash has been disbursed or repaid, or payment is due or not.

Measuring External Debt Positions*Disadvantages of Cash and Due-for-Payment Bases*

Both the cash and the due-for-payment bases have deficiencies in providing a comprehensive measure of gross external debt positions.

The cash recording basis contains information “only” on debt arising from cash flows; noncash transactions are not covered (for example, the provision of goods and services on which payment is delayed, and liabilities not met are not recognized, such as arrears). Thus, it provides insufficient coverage of external debt. Though the due-for-payment approach, as an extension of the cash basis, includes noncash transactions such as arrears and indexation, it still provides an incomplete measure of external debt. For instance, on a due-for-payment recording basis, payments not yet due for goods and services already delivered are not considered debt (unless, for example, there is a contractual agreement to extend trade credit). Also, interest is not recorded until due for payment, regardless of whether interest is in the form of a discount to the face value on issuance or in the form of interest payments (that is, paid periodically).

Advantage of an Accrual Basis

The accrual recording basis, which has long been used as the basis for commercial accounting, provides the most comprehensive information of the bases described, because it measures external debt on the basis of whether a creditor has ownership of a financial claim on a debtor. The accrual basis provides the most consistent measure of external debt, both in terms of coverage and size, in that it is indifferent (1) to the form of payment—debt can be created or extinguished through cash and/or non-cash payments (that is through the provision of value); (2) to the time of payment—debt is created or extinguished dependent on the time at which ownership of a claim is established or relinquished; and (3) to whether the future payments required on existing liabilities are in the form of principal or interest.⁵ As financial markets continue to innovate, this consistency of approach helps to ensure that the size and coverage of external debt is determined foremost by economic, and not payment, considerations.⁶

Finally, recording external debt on an accrual basis has the advantage of being consistent with other macroeconomic statistical systems, such as the 1993 SNA and the BPM5, both of which employ an accrual basis of recording. These systems provide information on the types of economic flows during the reporting period that affect the size and composition of external debt. The *Government Finance Statistics Manual* (IMF, 2001) and the *Monetary and Financial Statistics Manual* (IMF, 2000d) are also on an accrual recording basis. Besides enhancing comparability of information across different sets of macroeconomic statistics for data users, the adoption of a common recording basis would also contribute to a reduction in compilation costs through the ability to use common data series in related statistical systems.

⁵In principle, under an accrual reporting basis the stock of external debt at any one moment in time reflects past transactions and other economic flows, and, provided that the same valuation method is employed, equals the discounted value of future payments of interest and principal. For instance, if financial markets convert interest into principal, such as through stripped securities, the process of conversion has no impact on the measured stock of external debt because no new debt is created (although on a market value basis there could be valuation consequences arising from such a conversion).

⁶Although information on payment arrangements might well be valuable in its own right.

Valuation¹⁰

2.31 The *Guide* recommends that debt instruments are valued at the reference date at nominal value,

¹⁰See also *BPM5*, Chapter V.

and, for traded debt instruments, at market value as well. The nominal value of a debt instrument is a measure of value from the viewpoint of the debtor because at any moment in time it is the amount that the debtor owes to the creditor. This value is typically established by reference to the terms of a con-

tract between the debtor and creditor, and it is frequently used to construct debt ratios, such as those described in Chapter 15. The market value of a traded debt instrument is determined by its prevailing market price, which, as the best indication of the value that economic agents currently attribute to specific financial claims, provides a measure of the opportunity cost to both the debtor and the creditor.¹¹ It is the valuation principle adopted in the *1993 SNA* and *BPM5*.

2.32 The nominal value of a debt instrument reflects the value of the debt at creation; any subsequent economic flows, such as transactions (for example, repayment of principal); valuation changes (including exchange rate and other valuation changes other than market price changes); and any other changes. Conceptually, the nominal value of a debt instrument can be calculated by discounting future interest and principal payments at the existing contractual interest rate(s)¹² on the instrument; these interest rates may be fixed rate or variable rate. For fixed-rate instruments and instruments with contractually predetermined interest rates, this principle is straightforward to apply because the future payment schedule and the rate(s) to apply are known,¹³ but it is less straightforward to apply to debt liabilities with variable rates that change with market conditions. The appendix at the end of this chapter provides examples of calculating the nominal value of a debt instrument by discounting future payments of interest and principal.

2.33 Face value has been used to define nominal value in some instances, since face value is the undiscounted amount of principal to be repaid. While of interest in showing amounts contractually due to be paid at a future date, the use of face value as nominal

¹¹In the HIPC Initiative (see Appendix V), a representative market rate is used to discount future payments. This provides another measure of opportunity cost and is specific to countries in that program.

¹²A single rate is usually used to discount payments due in all future periods. In some circumstances, using different rates for the various future payments may be warranted. Even if a single rate of discount is used, dependent on the time until due, a different discount factor applies to each payment. For example, at a rate of discount of 10 percent, the discount factor for payments one year hence is 0.909 (or $1/(1 + 0.1)$) and for payments two years hence is 0.826 (or $1/(1 + 0.1)^2$) and so on. See also the example in Table 2.1.

¹³For a debt liability on which the interest rate steps up or down by contractually predetermined amounts over its life, the time profile of the discount factors to be applied to future payments would be nonlinear, reflecting these step changes.

value in measuring the gross external debt position can result in an inconsistent approach across all instruments and is not recommended. For instance, the face value of deep-discount bonds and zero-coupon bonds includes interest costs that have not yet accrued, which is counter to the accrual principle.

2.34 The market value of a traded debt instrument should be determined by the market price for that instrument prevailing on the reference date to which the position relates. The ideal source of a market price for a traded debt instrument is an organized or other financial market in which the instrument is traded in considerable volume and the market price is listed at regular intervals. In the absence of such a source, market value can be estimated by discounting future payment(s) at an appropriate market rate of interest. If the financial markets are closed on the reference date, the market price that should be used is that prevailing on the closest preceding date when the market was open. In some markets the market price quoted for traded debt securities does not take account of interest costs that have accrued but are not yet payable, but in determining market value these interest costs need to be included.

Nontraded debt instruments

2.35 As does *BPM5*, the *Guide* recommends that debt instruments that are not traded (or tradable) in organized or other financial markets—such as loans, currency and deposits, and trade credit—be valued at nominal value only.¹⁴ The nominal value of a debt instrument could be less than originally advanced if there have been repayments of principal, debt forgiveness, or other economic flows, such as arising from indexation, that affect the value of the amount outstanding. The nominal value of a debt instrument could be more than originally advanced because, for example, of the accrual of interest costs, or other economic flows.

2.36 For debt instruments that accrue no interest—for example, liabilities arising because dividends are

¹⁴International statistical manuals consider that for nontraded instruments, nominal value is an appropriate proxy for market value. Nonetheless, the development of markets, such as for credit derivatives linked to the credit risk of individual entities, is increasing the likelihood that market prices can be estimated even for nontraded instruments. As these markets extend, consideration might be given to compiling additional information on market values of nontraded debt.

declared but not yet payable—the nominal value is the amount owed. If there is an unusually long time¹⁵ before payment is due on an outstanding debt liability on which no interest costs accrue, then the value of the principal should be reduced by an amount that reflects the time to maturity and an appropriate existing contractual rate, and interest costs should accrue until actual payment is made.

2.37 For some debt, such as a loan, repayment may be specified in a contract in terms of quantities of commodities or other goods to be paid in installments over a period of time. At inception the value of the debt is equal to the principal advanced. The rate of interest, which will accrue on the principal, is that which equates the present value of the required future provision of the commodity or other good, given its current market price, to the principal outstanding. Conceptually, this type of contract is equivalent to the indexation of a loan, and so the initial rate of interest that accrues will change as the market price of the specified item changes, subject to any contractual arrangement (for example, limits in monetary terms on the maximum and minimum value that is to be paid by the debtor). When payments are made in the form of the good or commodity, the value of the principal outstanding will be reduced by the market value of the good or commodity at the time the payment is made.

2.38 In contrast, the value of the commodities, other goods, or services to be provided to extinguish a trade credit liability, including under barter arrangements, is that established at the creation of the debt; that is, when the exchange of value occurred. However, as noted above, if there is an unusually long time before payment, the value of the principal should be reduced by an amount that reflects the time to maturity and an appropriate existing contractual rate, and interest costs should accrue until actual payment is made.

2.39 The *Guide* recognizes the debt liabilities of pension funds and insurance companies to their nonresident participants and policyholders. The debt liability for a defined-benefit pension scheme is the present value of the promised benefits to nonresi-

dents; while for a defined-contribution scheme the debt liability is the current market value of the fund's assets prorated for the share of nonresidents' claims vis-à-vis total claims.¹⁶ For life insurance, the debt liability is the value of the reserves held against the outstanding life insurance policies issued to nonresidents. The debt liability to nonresidents of nonlife insurance companies is the value of any prepayments of premiums by nonresidents, and the present value of amounts expected to be paid out to nonresidents in settlements of claims, including disputed, but valid, claims.

2.40 For arrears, the nominal value is equal to the value of the payments—interest and principal—missed, and any subsequent economic flows, such as the accrual of additional interest costs.

2.41 For nontraded debt instruments where the nominal value is uncertain, the nominal value can be calculated by discounting future interest and principal payments at an appropriate existing contractual rate of interest.

Traded debt instruments

2.42 The *Guide* recommends that debt instruments traded (or tradable) in organized and other financial markets be valued at both nominal and market value.¹⁷ For a traded debt instrument, both nominal and market value can be determined from the value of the debt at creation and subsequent economic flows, except that market valuation takes account of any changes in the market price of the instrument, whereas nominal value does not.

2.43 For debt securities that are usually tradable but for which the market price is not readily observable, by using a market rate of interest the present value of the expected stream of future payments associated with the security can be used to estimate market value. This and other methods of estimating market value are explained in Box 2.2. For unlisted securities, the price reported for accounting or regulatory

¹⁵What constitutes an unusually long time in this context will depend on the circumstances. For instance, for any given time period, the higher the level of interest rates, the greater is the opportunity cost of delayed payment.

¹⁶In a defined-benefit scheme, the level of pension benefits promised by the employer to participating employees is guaranteed and usually determined by a formula based on participants' length of service and salary. In a defined-contribution scheme, the level of contributions to the fund by the employer is guaranteed, but the benefits that will be paid depend on the assets of the fund.

¹⁷This includes debt securities acquired under reverse transactions (see Table 4.5 in Chapter 4).

Box 2.2. General Methods for Estimating Market Value

When market-price data are unavailable for tradable instruments, there are two general methods for estimating market value or, as it is sometimes called, fair value:

- Discounting future cash flows to the present value using a market rate of interest; and
- Using market prices of financial assets and liabilities that are similar.

The first general method is to value financial assets and liabilities by basing market value on the present, or time-discounted, value of future cash flows. This is a well-established approach to valuation in both theory and practice. It calculates the market value of a financial asset or liability as the sum of the present values of all future cash flows. Market value is given by the following equation:

$$\text{Discounted present value} = \sum_{t=1}^n \frac{(\text{Cash flow})_t}{(1+i)^t}$$

where $(\text{Cash flow})_t$ denotes the cash flow in a future period (t), n denotes the number of future periods for which cash flows are expected, and i denotes the interest rate that is applied to discount the future cash flow in period t .

The method is relatively easy to apply in valuing any financial asset or liability if the future cash flows are known with certainty or can be estimated, and if a market interest rate (or series of market interest rates) is observable.

Directly basing market value on the market price of a similar financial instrument is a well-used technique when a market price is not directly observable. For example, the market price of a bond with five-year remaining maturity might be given by the market price of a publicly traded five-year bond having comparable default risk. In other cases, it may be appropriate to use the market price of a similar financial instrument, but with some adjustment in the market value to account for differences in liquidity and/or risk level between the instruments.

In some cases, the financial asset or liability may possess some characteristics of each of several other financial instruments, even though its characteristics are not generally similar to any one of these instruments. In such cases, information on the market prices and other characteristics (for example, type of instrument, issuing sector, maturity, credit rating, etc.) of the traded instruments can be used in estimating the market value of the instrument.

purposes might be used, although this method is less preferable than those mentioned above. Similarly, for deep-discount or zero-coupon bonds, the issue price plus amortization of the discount could be used in the absence of a market price.

2.44 If arrears are traded on secondary markets, as sometimes occurs, then a separate market value could be established.

Nondebt instruments

2.45 Positions in financial derivatives, equity securities, and equity capital and reinvested earnings on foreign direct investment are not included in the gross external debt position because they are not debt instruments, but they are recognized by the *Guide* as memorandum items to the position. These instruments are to be valued at market value.

2.46 The market value of a forward financial derivatives contract is derived from the difference between the agreed-upon contract price of an underlying item and the prevailing market price (or market price expected to prevail) of that item, times the notional amount, appropriately discounted. The notional amount—sometimes described as the nominal amount—is the amount underlying a financial derivatives contract that is necessary for calculating payments or receipts on the contract. This amount may or may not be exchanged. In the specific case of a swap contract, the market value is derived from the difference between the expected gross receipts and gross payments, appropriately discounted; that is, its net present value. The market value for a forward contract can therefore be calculated using available information—market and contract prices for the underlying item, time to maturity of the contract, the notional value, and market interest rates. From the viewpoint of the counterparties, the value of a forward contract may become negative (liability) or positive (asset) and may change both in magnitude and direction over time, depending on the movement in the market price for the underlying item. Forward contracts settled on a daily basis, such as those traded on organized exchanges—and known as futures—have a market value, but because of daily settlement it is likely to be zero value at each end-period.

2.47 The price of an option depends on the potential price volatility of the price of the underlying item, the time to maturity, interest rates, and the difference between the contract price and the market price of the underlying item. For traded options, whether they are traded on an exchange or not, the valuation should be based on the observable price. At inception the market value of a nontraded option is the amount of the premium paid or received. Subsequently nontraded options can be valued with the use of mathematical models, such as the Black-Scholes formulas, that take account of the factors mentioned above that determine option prices. In

the absence of a pricing model, the price reported for accounting or regulatory purposes might be used. Unlike forwards, options cannot switch from negative to positive value, or vice versa, but they remain an asset for the owner and a liability for the writer of the option.

2.48 For equity securities that are listed in organized markets or are readily tradable, the value of outstanding stocks should be based on market prices. The value of equity securities not quoted on stock exchanges or not traded regularly should be estimated by using prices of comparable quoted shares as regards past, current, and prospective attributes such as earnings and dividends. Alternatively, the net asset values of enterprises to which the equities relate could be used to estimate market values if the balance sheets of the enterprises are available on a current-value basis, but this is not a preferred method given the possibly large difference between balance sheet and equity market valuations.

2.49 For equity capital and reinvested earnings related to foreign direct investment, it is recognized that, in practice, balance sheet values of direct investment enterprises or direct investors are generally utilized to determine their value. If these balance sheet values are on a current market value basis, this valuation would be in accordance with the market value principle, but if these values are based on historical cost and not current revaluation, they would not conform to the principle. If historical cost from the balance sheets of direct investment enterprises (or investors) is used to determine the value of equity capital and reinvested earnings, compilers are also encouraged to collect data from enterprises on a current market value basis. In instances where the shares of direct investment enterprises are listed on stock exchanges, the listed prices should be used to calculate the market value of shares in those enterprises.

Unit of Account and Exchange Rate Conversion

2.50 The compilation of the gross external debt position statement is complicated by the fact that the liabilities may be expressed initially in a variety of currencies or in other standards of value, such as SDRs. The conversion of these liabilities into a reference unit of account is a requisite for the construc-

tion of consistent and analytically meaningful gross external debt statistics.

2.51 From the perspective of the national compiler, the domestic currency unit is the obvious choice for measuring the gross external debt position. Such a position so denominated is compatible with the national accounts and most of the economy's other economic and monetary statistics expressed in that unit. However, if the currency is subject to significant fluctuation relative to other currencies, a statement denominated in domestic currency could be of diminished analytical value because valuation changes could dominate interperiod comparisons.

2.52 The most appropriate exchange rate to be used for conversion of external debt (and assets) denominated in foreign currencies into the unit of account is the market (spot) rate prevailing on the reference date to which the position relates. The midpoint between buying and selling rates should be used. For conversion of debt in a multiple rate system,¹⁸ the rate on the reference date for the actual exchange rate applicable to specific liabilities (and assets) should be used.

Maturity

2.53 For debt liabilities, it is recommended that the traditional distinction between long- and short-term maturity, based on the formal criterion of original maturity, be retained. Long-term debt is defined as debt with an original maturity of more than one year or with no stated maturity. Short-term debt, which includes currency, is defined as debt repayable on demand or with an original maturity of one year or less. If an instrument has an original maturity of one year or less it should be classified as short-term, even if the instrument is issued under an arrangement that is long-term in nature.

Appendix: Accrual of Interest Costs—How Should This Be Implemented?

2.54 The *Guide* introduces the idea of including interest costs that have accrued and are not yet

¹⁸A multiple exchange rate system is a scheme for which there are schedules of exchange rates, set by the authorities, used to apply separate exchange rates to various categories of transactions or transactors.

payable in the gross external debt position. This annex presents the theoretical framework for the accrual of interest costs, and a more detailed discussion on how to apply the accrual principle, by type of instrument.

2.55 Because the focus of the *Guide* is on position statistics, the debate about whether the rate at which interest should accrue on market-traded instruments should be based on the current market value of the debt (the so-called creditor approach) or as stipulated in the original contract (the so-called debtor approach) is not relevant. This is because the market value position to be reported is based on the market price of the instrument, and that value should include any interest costs that have accrued and are not yet payable.¹⁹ Given this, unless otherwise stated, this annex focuses on nominal value.

2.56 At the outset, it is worth noting some key principles for applying the accrual of interest costs principle in both the nominal and market value presentations of external debt:

- All financial instruments bearing interest are included;
- The accrual of interest costs can be calculated by the straightline or compound interest method;
- All instruments issued at a discount are treated in a similar manner; and
- The accrual of interest costs also applies to variable-rate and index-linked instruments.

Theoretical Framework for the Accrual of Interest Costs

2.57 Three examples, drawn from work undertaken by Statistics Canada (see Laliberté and Tremblay, 1996), are provided to illustrate the theoretical framework for the accrual of interest costs. These examples, and the discussion on accruing interest costs on a straightline or compound basis that immediately follows, provide an explanation of the basic principles.

2.58 The first example is that of a simple instrument that is issued and redeemed at the same price

¹⁹If an economy was disseminating a debt-service ratio with future interest and principal payments calculated using the current yield on debt, then if the market value of external debt rises, part of the future interest payments could become principal payments.

and pays fixed annual interest at the end of each year; the second example is of an instrument issued at a price that is at a discount to the redemption price, and that also makes annual interest payments; and the third example is of an instrument issued at a discount that has no interest payments. These examples have general applicability throughout the *Guide*, in that they explain how future payments can be discounted to produce the stock of external debt at any moment in time.

Example 1: Present Value and the Accrual of Interest Costs—Simple Case

2.59 In this simple example, a debt instrument is issued with a five-year maturity, a principal amount of \$100, and annual payments of \$10 each year as interest. That is, the interest rate on the instrument is fixed at 10 percent a year. Given this, as seen in Table 2.1, in present value terms the payment of \$10 in a year's time is worth $10/(1+0.1)$, or 9.09; the payment of \$10 in two years' time is worth $10/(1+0.1)^2$, or 8.26; and so on. In present value terms, the principal amount advanced to be repaid at maturity is worth $100/(1+0.1)^5$, or 62.09. The present value for each payment is provided in the left-hand column, and it can be seen that the present value of all future payments equals the issue price of \$100.

2.60 Because interest costs accrue at 10 percent a year on a continuous basis, and are added to the principal amount, after six months of the first year the principal amount has increased. It equals the \$100 principal amount due to be paid at maturity, plus half of the year's interest payment, \$5 (calculated on a straightline basis), or plus just under half, \$4.88 (calculated on a compound basis). Any payments of interest, or principal, would reduce the amount outstanding.

2.61 Alternatively, the principal amount outstanding after six months could be calculated by discounting all future payments. The present value of each payment after six months is presented in parentheses in the left-hand column. After six months, each of the values in the left-hand column has increased because the payments are closer to being made, and time is being discounted at a rate of 10 percent a year. The discounted value of each payment after six months can be seen to sum to \$104.88, the same amount outstanding as with

Table 2.1. Present Value and the Accrual of Interest Costs: Example 1 (Simple Case)

Present Value in 2001		2002	2003	2004	2005	2006
9.09	(9.54)*	$10/(1+0.1)$				
8.26	(8.66)		$10/(1+0.1)^2$			
7.52	(7.89)			$10/(1+0.1)^3$		
6.83	(7.16)				$10/(1+0.1)^4$	
6.21	(6.51)					$10/(1+0.1)^5$
37.91	(39.76)	$10/(1+0.1)$	$10/(1+0.1)^2$	$10/(1+0.1)^3$	$10/(1+0.1)^4$	$10/(1+0.1)^5$
+62.09	(65.12)					$100/(1+0.1)^5$
=100.00	(104.88)					

* (9.54) = The present value of the payment six months after issuance of the debt instrument.

the compound approach to accruing interest costs. One practical advantage of maintaining a system that discounts each payment to its present value is that if the instrument is stripped (see below)—that is, all payments traded separately—the compilation system will already be prepared for such a situation.

2.62 Unless there are early repayments that reduce the amount of principal outstanding—for instance, with certain types of asset-backed securities, partial repayments of principal could occur at any time—the amounts described above would be recorded in the gross external debt position; that is, after six months with a contractual interest rate of ten percent per annum, the amount outstanding would be \$104.88 (or \$105 on a straightline basis).

2.63 The rate relevant for discounting all the payments to a market value would be implicit in the market price, or to put it another way, the market value amount would equal future payments discounted at the current market rate of interest for that debt instrument. The market value of external debt should include any interest costs that have accrued and are not yet payable.

Example 2: Present Value and the Accrual of Interest Costs—Discounted Principal

2.64 The second example concerns the more complex case of instruments issued at a discount to the redemption value. These instruments will include securities, and any other instruments where the issue price is less than the redemption

price.²⁰ In this instance, both the coupon payments and the difference between the issue price and the redemption price determine the rate at which interest costs accrue. Table 2.2 presents the calculations involving an instrument similar to that in the first example above—that is, issued with the same 10 percent yield, but “only” having annual interest payments of \$8. The difference between the 10 percent yield and the yield implied by coupon payments is reflected in the discount between the issue price and redemption price. Once again, from the left-hand column of the table it can be seen that discounting all the future payments by 10 percent, including the principal amount, provides the issue price of \$92.40.

2.65 How is the accrual of interest costs calculated? Simply, interest costs accrue at a yield of 10 percent each year, of which \$8 is paid out in interest payments and the rest is reinvested (or capitalized) into the original principal amount. The principal amount grows from year to year, due to the continued reinvestment of interest costs that have accrued, and as a consequence, so does the absolute amount of interest costs that accrue each year. As with the first example, the present value of each payment

²⁰For instruments issued at a discount, issue price is a generic term that means the value of principal at inception of the debt; redemption price is similarly a generic term that means the amount of principal to be paid at maturity. This is because some instruments are “issued” without a price as such (for instance, trade credit). In such instances, the issue price equals the economic value provided (that is, of goods or services provided) and the redemption price equals the amount owed when the debt liability is due to be paid.

Table 2.2. Present Value and the Accrual of Interest Costs: Example 2 (Discounted Principal)

Present Value in 2001		2002	2003	2004	2005	2006
7.27	(7.62)*	$8/(1+0.1)$				
6.61	(6.93)		$8/(1+0.1)^2$			
6.01	(6.30)			$8/(1+0.1)^3$		
5.46	(5.73)				$8/(1+0.1)^4$	
4.97	(5.21)					$8/(1+0.1)^5$
30.31	(31.79)	$8/(1+0.1)$	$8/(1+0.1)^2$	$8/(1+0.1)^3$	$8/(1+0.1)^4$	$8/(1+0.1)^5$
+62.09	(65.12)					100/(1+0.1) ⁵
=92.40	(96.91)					

* (7.62) = The present value of the payment six months after issuance of the debt instrument.

after six months is presented in parentheses in the left-hand column. In the position data, the amount outstanding can be seen to be \$96.91 after six months.

Example 3: Present Value and the Accrual of Interest—Zero-Coupon Instrument

2.66 The third example covers zero-coupon instruments. If the instrument is issued at discount and has no coupon, then the principal amount increases in value over time by the implicit yield on the security at issuance, derived from the difference between the issue price and the redemption price. In the example below, the zero-coupon instrument is issued at \$62.09 and is to be redeemed at \$100; the difference implies a 10 percent yield. As can be seen in Table 2.3, the principal amount grows each year because of the continued reinvestment of interest costs that accrue, and so after the first year the amount outstanding has increased by 10 percent to \$68.30, by a further 10 percent in year two to \$75.13, and so on until redemption at \$100 at the end of year five.²¹

Straightline or compound interest

2.67 In calculating the accrual of interest costs by a straightline approach, an equal amount of the interest costs to be paid is attributed to each period—for example, \$5 for the first six months in the first

example above. For bonds with interest payments (that is, annual or more frequent), on secondary markets the buyer of the bond pays to the seller the amount accrued since the last payment, according to a very simple arithmetic proportionality. For many international loans, debt-monitoring systems record the accrual of interest costs on a straightline basis.

2.68 However, the accrual of interest costs can also be calculated on a compound basis—that is, continuously adding the accrued interest costs not yet payable to the principal amount each period, and applying to that amount the interest yield on the debt in order to calculate the interest costs for the next period. This method is the theoretically preferred approach because it relates the cost to the provision of capital and allows reconciliation between amounts accrued and the discounted value of future payments. Such an approach is commonly used when information on individual instruments owned by nonresidents is unknown, and so to calculate the accrual of interest costs an average yield is applied to positions. Of course, in such instances the theoretical benefit of using a yield is offset by the approximation of applying an average yield to a range of instruments.

2.69 Differences in methods may well have a small effect on the gross external debt position. However, as is evident from the first example, for each instrument the straightline approach will overestimate the position in the short term. For fixed-rate instruments, this will be gradually “unwound” as the time of the interest payment approaches.

²¹A worked example of accruing interest on a zero-coupon bond in the balance of payments is given in the IMF’s *Balance of Payments Textbook* (1996), paragraphs 400 and 401, p. 83.

Table 2.3. Present Value and the Accrual of Interest Costs: Example 3 (Zero-Coupon Instrument)

Present Value in 2001	2002	2003	2004	2005	2006
$100/(1 + 0.1)$ = 62.09	$62.09 (1 + 0.1)$ = 68.30	$62.09 (1 + 0.1)^2$ = 75.13	$62.09 (1 + 0.1)^3$ = 82.64	$62.09 (1 + 0.1)^4$ = 90.90	$62.09 (1 + 0.1)^5$ = 100

Specific Instruments²²

Fixed-rate instruments

Loans

2.70 For loans (except interest-free loans) interest costs are recorded as accruing continuously, increasing the value of the loan outstanding, until paid. When loans have been rescheduled and a new (moratorium) interest rate agreed between the debtor and creditor, interest costs should accrue on the rescheduled debt at the new moratorium interest rate. It is recognized that interest costs that accrue on loans may have to follow national practices and be classified under *other debt liabilities*.

Deposits

2.71 For deposits, interest may be credited to the account (reinvested) at certain times, such as the end of a given period. In the *Guide*, interest costs accrue continuously and become part of principal on a continuous basis. It is recognized that interest costs that accrue on deposits may have to follow national practices and be classified under *other debt liabilities*.

2.72 For some deposits, such as time or savings deposits, a given rate of interest may be paid only under the condition of a minimum holding period. An early liquidation, if contractually allowed, is balanced by a reduction in the rate of interest paid to the holder. For recording the accrual of interest costs, the rate of interest to use is the maximum rate that the depositor could receive in the normal course of the contract (that is, respecting the arrangements about maturity or notice). In the event, if the

arrangements are not fully respected, the amount of interest costs that accrued previously are corrected in line with the rate the depositor actually received. As the revised amount is in all likelihood globally very small compared with the total interest costs for deposits, for practical reasons the correction could be included in the last period of compilation (as opposed to revising back data).

Securities

2.73 For securities for which the issue and redemption prices are the same, interest costs accrue in the same manner as for loans.

Instruments issued at a discount

2.74 Instruments for which the issue price is less than the redemption price are all treated in the same way. This includes nontraded instruments where the amount to be paid is greater than the economic value provided at inception of the debt. The method of accrual for instruments issued at a discount or premium was described in paragraph 2.28 above.

2.75 For short-term negotiable instruments,²³ issuance at a discount is very frequent. Generally these instruments are akin to zero-coupon bonds (example 3 above), and so the treatment of such instruments is the same. Without information on individual securities, one practical approach is to base estimates of the accrual of interest costs on average maturities and average rates of interest at issuance.

2.76 External debt, particularly general government debt, could be issued in the form of fungible bonds (also named linear bonds). In this case, secu-

²²This text has drawn upon that in Eurostat (2000), the *ESA95 Manual on Government Deficit and Debt*.

²³A negotiable financial instrument is one whose legal ownership is capable of being transferred from one unit to another unit by delivery or endorsement.

rities are issued under one similar “line” (in terms of coupon amounts and payment dates, and final redemption price and maturity date) in tranches, generally issued during a rather short period but sometimes over a longer one. Each tranche is issued at a specific issue price according to the prevailing market conditions. Fungible bonds may be seen as a good example of instruments with two interest components: the coupon (representing the interest payment), and the difference between the issue price and redemption price. Thus, in principle each tranche should be identified separately because the nominal interest rate might well differ from tranche to tranche given the different market conditions that existed when they were issued. Once issued, however, the tranches may mix and so may not trade separately on secondary markets, nor be identified separately in portfolios. If so, it is necessary to estimate a weighted-average interest rate resulting from issuing different tranches, updated at each new issue, and apply this to the amount owed to nonresidents.²⁴

Stripped securities

2.77 Stripped securities are securities that have been transformed from a principal amount with interest payments into a series of zero-coupon bonds, with a range of maturities matching the interest payment dates and the redemption date of the principal amount. The essence of stripping was described in the first example above: the coupon payment amounts are separately traded. In itself, the act of stripping does not affect the nominal value of the debt outstanding for the issuer of the securities that have been stripped.

2.78 There are two types of stripping. First, if the stripped securities are issued by a third party, who has acquired the original securities and is using them to “back” the issue of the stripped securities, then new funds have been raised by the third party, with the interest rate determined at the time of issuance.

2.79 On the other hand, if the owner of the original security has asked the settlement house or clearing

house in which the security is registered to “issue” strips from the original security, the strips replace the original security and remain the direct obligation of the issuer of the original security. In the gross external debt position on a nominal value basis, it is unrealistic from a practical point of view to take into account the rate prevailing at the issuance of each strip. Rather, since stripping provides no additional funding to the issuer and there is no impact on the original cost of borrowing, fully determined at the issuance time (in the case of fixed-rate) or following rules that cannot be changed (in the case of variable-rate), it is assumed that stripping does not change the cost of borrowing. So, unlike other zero-coupon bonds, the interest rate used for calculating the accrual of interest costs for strips is not the rate prevailing at the time of stripping, but rather the original cost of borrowing—that is, on the underlying security.

2.80 In some countries, strips of interest payments may refer to coupons of several bonds, with different nominal amounts but paid at the same date. In this case, best efforts should be made to use the weighted-average nominal interest rate of the different underlying bonds to calculate the accrual of interest costs on the stripped securities.

Arrears

2.81 Interest that accrues on arrears (both principal and interest arrears) is known as late interest. For arrears arising from a debt contract, interest costs should accrue at the same interest rate as on the original debt, unless the interest rate for arrears was stipulated in the original debt contract, in which case this stipulated interest rate should be used. The stipulated rate may include a penalty rate in addition to the interest rate on the original debt. For other arrears, in the absence of other information, interest costs accrue on these arrears at the market rate of interest for overnight borrowing. Also, any additional charges relating to past arrears, agreed by the debtor and creditor at the time the arrears are rescheduled, and to be paid by the debtor to the creditor, should be regarded as an interest cost of the debtor at the time the agreement is implemented. If an item is purchased on credit and the debtor fails to pay within the period stated at the time the purchase was made, any extra charges incurred should be regarded as an interest cost and accrue until the debt is extinguished.

²⁴A creditor might focus on the prevailing market interest rate, or the rate prevailing when they purchased the security, and hence might record the claim at a value different from that recorded by the debtor.

Variable-rate instruments*Interest-rate-linked instruments*

2.82 For loans, deposits, and securities, the same principles as with fixed-rate instruments apply, except that in the absence of firm information, the accrual of interest costs should be estimated and added to the gross external debt position, using the most recent relevant observation(s) of the reference index. Revisions to back data should be undertaken when the amount of interest costs that have accrued is known with certainty.

2.83 In addition, if the interest rate can vary only under the condition of a minimum change in the index and/or within specific upward limits, any estimate of the accrual of interest costs should take account of any such conditions. If there is a link between the nature of the rate index and the frequency of interest payments—for example, interest is indexed on a quarterly basis and is normally paid every quarter with a delay of one quarter—then the exact amount paid to the owners of the securities may well be known in advance, and so can be accrued with certainty. This is known as interest being “predetermined.”

Index-linked instruments

2.84 External debt might be indexed to indices other than interest rate indices. Examples include indexing to the price of a commodity, an exchange rate index, a stock exchange index, or the price of a specific security, and so on. Principal as well as interest payments may be indexed. The index can apply continuously over all or part of the life of the instrument. Any change in value related to indexation is recorded as an interest cost, and so affects the principal amount outstanding until paid. The impact of the indexation on the principal amount is recorded on a continuous basis for the period during which the indexing is operative.

2.85 The method of calculation is the same as that for variable-rate interest discussed above; that is, the accrued amount should be estimated using the most recent relevant observation(s) of the reference index and added to the gross external debt position. For instance, if in the first example above interest payments were indexed, and movement in the index after six months suggested that interest payments would increase to \$12 a year, then the interest costs accrued to date would be \$6 on a

straightline basis (or \$5.80 on a compound basis), and the amount outstanding \$106 (\$105.80). Revisions to back data are undertaken when the amount of interest costs that have accrued is known with certainty.

2.86 As mentioned above, a loan that is repayable in commodities or other goods in installments over a period of time (see paragraph 2.37) is conceptually equivalent to an indexed loan. At inception the principal amount outstanding is the value of principal advanced; as with other debt instruments, interest costs will accrue on this amount, increasing its value. At any moment in time, the interest rate that accrues is that which equates the market value of the commodities or other goods to be paid with the principal amount then outstanding; as the market price of the commodity or other good changes, so will the implicit interest rate.

2.87 Index-linked instruments may include a clause for a minimum guaranteed redemption value. Any estimate of the accrual of interest costs should take account of such conditions. For instance, if strict application of the index had the effect of reducing the amount outstanding to less than the minimum, it would not be relevant to record any reduction below the minimum guaranteed redemption value. Normally, the current market price of debt instruments takes into account such a clause.

Instruments with grace periods

2.88 Some debt instruments may have a grace period during which no interest payments are to be made. Provided that the debtor can repay, without penalty, the same amount of principal at the end of the grace period as at the beginning, no interest costs accrue during the grace period. This remains true even if the rate of interest applied in a second and/or subsequent time period is adjusted (for example, there is a step up), so that the final yield is roughly similar to normal conditions over the total life of the instrument.

Instruments with embedded derivatives

2.89 Some instruments may have embedded derivatives that could, if exercised, affect the rate of interest. For such instruments, interest costs should accrue, and be included in the gross external debt position, as “normal.” If the financial derivative is

exercised and so affects the interest rate, this should be reflected in the rate at which interest accrues—for example, in a structured note with a maximum interest rate, when, and as long as, the maximum is reached and so the financial derivative is “exercised,” interest costs should accrue at the maximum rate and no more. The market price of debt instruments should reflect the likelihood of the financial derivative being exercised.

Foreign currency instruments

2.90 Interest costs should accrue (or not) in foreign currency on an instrument denominated in foreign currency, adding to the outstanding principal amount, until paid or in arrears. The principal amount in foreign currency should be converted into the unit of account at the midpoint between the buying and selling market (spot) rates on the reference date to which the position relates.

3. Identification of Institutional Sectors and Financial Instruments

Introduction

3.1 In the *Guide*, as in the *1993 SNA* and *BPM5*, institutional units, and the instruments in which they transact, are grouped into categories so as to enhance the analytical usefulness of the data. Institutional units are grouped into institutional sectors, and financial instruments are classified by their nature into instrument categories. However, the classifications of institutional sectors and financial instruments are determined by the analytical needs of external debt statistics and so can differ from other macroeconomic datasets. For instance, the central bank, an institutional unit, is an institutional subsector in the *1993 SNA* but may not necessarily undertake all monetary authority activities (such as currency issuance or international reserve management) in an economy. In the *Guide*, all the monetary authority-type activities are included together in the monetary authorities sector regardless of whether they are actually undertaken in the central bank or not. Given the importance of ensuring compatibility and consistency across related macroeconomic datasets, the institutional sectors defined in the *Guide* can be reconciled with those in the *BPM5*.

3.2 The institutional sector breakdown groups institutional units with common economic objectives and functions: general government, monetary authorities, banks, and *other sectors*. These sectors are defined in this chapter, as are the subsectors of *other sectors*: nonbank financial corporations, nonfinancial corporations, and households and nonprofit institutions serving households. *BPM5* does not provide definitions of the subsectors of *other sectors*.

3.3 On the classification of financial instruments, the *Guide* gives prominence to four categories of instruments in particular: debt securities, trade credit, loans, and currency and deposits. There is also an *other debt liabilities* category; this would include items such as accounts payable. This chapter ex-

plains the nature of these types of financial instruments in the context of the *BPM5* functional categories from which they are drawn. Further, Appendix I defines specific financial instruments and transactions and provides classification guidance; it therefore should be consulted in conjunction with this chapter.

Institutional Sectors

3.4 The institutional sector presentations below are consistent with the *1993 SNA* except that, in line with *BPM5*, the *Guide* has a slightly different definition for the general government and central bank sectors.¹

3.5 The *monetary authorities* sector is a functional concept used in the balance of payments that covers the central bank (or currency board, monetary agency, etc.) and any other operations that are usually attributable to the central bank but are carried out by other government institutions or commercial banks. Such operations include the issuance of currency; maintenance and management of international reserves, including those resulting from transactions with the IMF; and the operation of exchange stabilization funds.

3.6 The *general government* sector, with the exception noted in the previous paragraph, is defined consistently with the definition of that sector in the *1993 SNA*. The government of a country consists of the public authorities and their agencies, which are entities established through political processes that exercise legislative, judicial, and executive authority within a territorial area. The principal economic functions of a government are (1) to assume respon-

¹Institutional sectors are also described in detail in Chapter IV of the *1993 SNA*.

sibility for the provision of goods and services to the community on a nonmarket basis, either for collective or individual consumption, and (2) to redistribute income and wealth by means of transfer payments. An additional characteristic of government is that these activities must be financed primarily by taxation or other compulsory transfers. General government consists of (i) government units that exist at each level—central, state, or local—of government within the national economy; (ii) all social security funds operated at each level of government; and (iii) all nonmarket nonprofit institutions that are controlled and mainly financed by government units. Public corporations, and unincorporated enterprises that function as if they were corporations (so-called quasi-corporations) are explicitly excluded from the general government sector and are allocated to the financial or nonfinancial corporate sectors, as appropriate. A quasi-corporation can be owned by a resident or nonresident entity but typically will keep a separate set of accounts from its parent and/or, if owned by a nonresident, be engaged in a significant amount of production in the resident economy over a long or indefinite period of time.

3.7 The *banking* sector is identical with the “other (than the central bank) depository corporations” subsector of the financial corporate sector in the *1993 SNA*.² Included are all resident units engaging in financial intermediation as a principal activity and having liabilities in the form of deposits payable on demand, transferable by check, or otherwise used for making payments, or having liabilities in the form of deposits that may not be readily transferable, such as short-term certificates of deposit, but that are close substitutes for deposits and are included in measures of money broadly defined. Thus, in addition to commercial banks, the banking sector encompasses institutions such as savings banks, savings and loan associations, credit unions

²Covering both the deposit money corporations (S.1221) and other (S.1222) subsectors of the *1993 SNA*. In the IMF’s *Monetary and Financial Statistics Manual* (2000d), other depository corporations are defined to include only those financial intermediaries issuing deposits and close substitutes that are included in the national definition of broad money, which may exclude (include) institutional units that are included (excluded) within the *1993 SNA* definition. Rather than as banks, these excluded institutional units would be classified as nonbank financial corporations (or vice versa). While it is recommended in the *Guide* that the definition of banks be consistent with the *1993 SNA* and *BPM5*, it is recognized that countries may rely on data from monetary surveys to compile external debt statistics for the banking sector.

or cooperatives, and building societies. Post office savings banks or other government-controlled savings banks are also included if they are institutional units separate from the government.

3.8 The *other sectors* category comprises nonbank financial corporations, nonfinancial corporations, and households and nonprofit institutions serving households subsectors.

3.9 The *nonbank financial corporations* subsector comprises insurance corporations and pension funds, other nonbank financial intermediaries, and financial auxiliaries. These types of institutions are all resident subsectors in the *1993 SNA*. Insurance corporations consist of incorporated, mutual, and other entities whose principal function is to provide life, accident, sickness, fire, and other types of insurance to individual units or groups of units through the pooling of risk. Pension funds are those that are constituted in such a way that they are separate institutional units from the units that create them and are established for purposes of providing benefits on retirement for specific groups of employees (and, perhaps, their dependents). These funds have their own assets and liabilities and engage in financial transactions on the market on their own account. Other financial intermediaries consist of all resident corporations or quasi-corporations primarily engaged in financial intermediation, except for banks, insurance corporations, and pension funds. The types of corporations included under this heading are security dealers, investment corporations, and corporations engaged in personal finance and/or consumer credit. Financial auxiliaries consist of those resident corporations and quasi-corporations that engage primarily in activities closely related to financial intermediation but that do not themselves perform an intermediation role, such as security brokers, loan brokers, and insurance brokers.

3.10 The *nonfinancial corporations* subsector consists of resident entities whose principal activity is the production of market goods or nonfinancial services. This sector is defined consistently with the definition in the *1993 SNA*. The sector includes all resident nonfinancial corporations; all resident nonfinancial quasi-corporations, including the branches or agencies of foreign-owned nonfinancial enterprises that are engaged in significant amounts of production on the economic territory on a long-term basis; and all resident nonprofit institutions

Table 3.1. Standard Components of the IIP: Direct Investment

Assets	Liabilities
<i>Direct investment abroad</i>	<i>Direct investment in reporting economy</i>
Equity capital and reinvested earnings	Equity capital and reinvested earnings
Claims on affiliated enterprises	Claims on direct investors
Liabilities to affiliated enterprises	Liabilities to direct investors
Other capital	Other capital
Claims on affiliated enterprises	Claims on direct investors
Liabilities to affiliated enterprises ¹	Liabilities to direct investors ¹

¹Instruments in these categories are debt liabilities to be included in external debt.

that are market producers of goods or nonfinancial services.

3.11 The *households and nonprofit institutions serving households (households and NPISH)* subsector comprises the household sector, consisting of resident households, and the nonprofit institutions serving households sector, consisting of such entities as professional societies, political parties, trade unions, charities, etc.

3.12 In the presentation of the gross external debt position (see below), *intercompany lending* liabilities under a direct investment relationship are separately identified. Equity liabilities arising from a direct investment, like all equity liabilities, are excluded from external debt. These instruments are described in more detail in paragraph 3.16.

Instrument Classification

3.13 This section defines the types of financial instruments to be included in the presentation of the gross external debt position. They are defined in the context of the *BPM5* functional categories—direct investment, portfolio investment, financial derivatives, other investment, and reserve assets—from which they are drawn. This allows the compiler, if necessary, to derive the gross external debt position data from the IIP statement.

3.14 *Direct investment* (Table 3.1) refers to a lasting interest of an entity resident in one economy (the direct investor) in an entity resident in another economy (the direct investment enterprise), defined in *BPM5* as ownership of 10 percent or more of the or-

dinary shares or voting power (for an incorporated enterprise) or the equivalent (for an unincorporated enterprise).³ Once established, all financial claims of the investor on the enterprise, and vice and versa, and all financial claims on, or liabilities to, related (affiliated) enterprises, are included under direct investment (with two exceptions: financial derivatives and certain intercompany assets and liabilities between two affiliated financial intermediaries—see paragraph 3.18). Of the direct investment components, *other capital*, when owed to nonresident direct investors or affiliates, is included in the gross external debt position; but the other components are not.

3.15 *Other capital* covers borrowing and lending of funds—including debt securities and suppliers' credits (for example, trade credits)—among direct investors and related subsidiaries, branches, and associates. In the gross external debt position tables, other capital is presented as *direct investment: intercompany lending*.

3.16 *Equity capital and reinvested earnings* (comprising equity in branches, subsidiaries, and associates—except nonparticipating, preferred shares, which are classified as debt instruments—and other capital contributions, such as the provision of machinery) is not a debt instrument.

3.17 In practice, it is sometimes difficult to distinguish whether the claims of a direct investor on a di-

³Further information on the methodology for measuring direct investment is available in *BPM5*, Chapter XVIII, and its related publications, and in the *OECD Benchmark Definition of Foreign Direct Investment, Third Edition* (OECD, 1996).

Table 3.2. Standard Components of the IIP: Portfolio Investment

Assets	Liabilities
<i>Equity securities</i>	<i>Equity securities</i>
Monetary authorities	Banks
General government	Other sectors
Banks	<i>Debt securities</i>
Other sectors	Bonds and notes ¹
<i>Debt securities</i>	Monetary authorities
Bonds and notes	General government
Monetary authorities	Banks
General government	Other sectors
Banks	Money market instruments ¹
Other sectors	Monetary authorities
Money market instruments	General government
Monetary authorities	Banks
General government	Other sectors
Banks	
Other sectors	

¹Instruments in these categories are debt liabilities to be included in external debt.

rect investment enterprise are other capital, which is classified as external debt, or equity capital, which is not. Differentiation is particularly difficult when an enterprise is 100 percent owned by a direct investor, such as when the direct investment enterprise is a branch or unincorporated enterprise. In these situations, the classification of capital could be the same as used in the direct investment enterprise's accounting records. That is, when a claim of the direct investor on the direct investment enterprise is considered to be equity capital or shareholder funds in the accounting records of the direct investment enterprise, this claim is also considered equity capital for external debt purposes. Subject to this condition: if liabilities are only to be repaid in the event that a profit is made by the direct investment enterprise, then the liabilities are classified as equity capital. Similarly, in some instances the direct investor might fund local expenses directly and also receive directly the income arising from the output of the direct investment enterprise. The *Guide* regards such payments and receipts as the provision and withdrawal of equity capital, respectively, in the direct investment enterprise by the direct investor.

3.18 The stocks of intercompany assets and liabilities between two affiliated financial intermediaries, including special purpose entities (SPEs) principally engaged in financial intermediation, that

are recorded under direct investment are limited to permanent debt (loan capital representing a permanent interest)—classified as direct investment: intercompany lending—and equity capital and reinvested earnings. Other intercompany debt liabilities between affiliated financial intermediaries are classified by type of instrument, such as loans, debt security, etc., and are attributed to the institutional sector of the debtor entity. For this purpose, financial intermediaries are defined as enterprises principally engaged in providing financial intermediation services or services auxiliary to financial intermediation and comprise those corporations and quasi-corporations that are grouped, in the *1993 SNA*, into the following subsectors: (1) other depository corporations (other than the central bank); (2) other financial intermediaries, except insurance corporations and pension funds; and (3) financial auxiliaries.

3.19 *Portfolio investment* (Table 3.2) includes traded securities (other than those included in direct investment and reserve assets). These instruments are usually traded (or tradable) in organized and other financial markets, including over-the-counter (OTC) markets. When they are owed to nonresidents, of the portfolio investment components, debt securities—that is, *bonds and notes*, and *money market instruments*—are included in the gross external debt position. *Equity securities*, including share investments in mutual funds and investment trusts,⁴ are not included in the gross external debt position.

3.20 Debt securities issued with an original maturity of more than one year are classified as *bonds and notes*, even though their remaining maturity at the time of the investment may be less than one year. Bonds and notes usually give the holder the unconditional right to a fixed money income or contractually determined variable money income (payment of interest being independent of the earnings of the debtor). With the exception of perpetual bonds, bonds and notes also provide the unconditional right to a fixed sum in repayment of principal on a specified date or dates. Included among bonds and notes

⁴A mutual fund or investment trust liability that requires payment(s) of principal and/or interest by the mutual fund or investment trust to the creditor at some point(s) in the future is to be recorded as a debt instrument and, if owed to nonresidents, included in the gross external debt position. The instrument classification would be dependent on the characteristics of the liability—for example, as a deposit (see paragraph 3.34).

are so-called asset-backed securities and collateralized debt obligations; that is, securities on which payments to creditors are explicitly dependent on a specific stream of income—for example, future lottery receipts or a pool of nontraded instruments (say, loans or export receivables); see Appendix I for more details.

3.21 Debt securities issued with an original maturity of one year or less are classified as *money market instruments*. These instruments generally give the holder the unconditional right to receive a stated, fixed sum of money on a specified date. These short-term instruments are usually traded, at a discount, in organized markets; the discount is dependent on the interest rate and the time remaining to maturity. Examples of money market instruments include treasury bills, commercial and financial paper, and banker's acceptances. Like bonds and notes, money market instruments can be “backed” by a specific stream of income or pool of nontraded instruments.

3.22 Further, where an instrument is provided by an importer to an exporter with such characteristics that it is tradable in organized and other financial markets, such as a promissory note, it should be classified as a debt security—either *bonds and notes*, or *money market instruments* depending on its original maturity—in the gross external debt position. Separate identification of the outstanding value of such instruments is also encouraged because of their role in financing trade. (See also the description of trade-related credit in Chapter 6.)

3.23 *Equity securities* cover all instruments and records acknowledging, after the claims of all creditors have been met, claims to the residual value of incorporated enterprises. These securities are not debt instruments and so are not external debt liabilities. Shares, stocks, preferred stock or shares, participation, or similar documents—such as American Depository Receipts—usually denote ownership of equity. Shares of collective investment institutions, e.g., mutual funds and investment trusts, are also included.

3.24 *Financial derivatives*⁵ (Table 3.3) are financial instruments that are linked to a specific financial in-

⁵The treatment of financial derivatives in the balance of payments and IIP is described in *Financial Derivatives: A Supplement to the Fifth Edition (1993) of the Balance of Payments Manual* (IMF, 2000c).

Table 3.3. Standard Components of the IIP: Financial Derivatives

Assets	Liabilities
<i>Financial derivatives</i>	<i>Financial derivatives</i>
Monetary authorities	Monetary authorities
General government	General government
Banks	Banks
Other sectors	Other sectors

strument, indicator, or commodity and through which specific financial risks can be traded in financial markets in their own right. As explained in Chapter 2 (see paragraph 2.11), financial derivatives are not debt instruments, but information on them can be relevant for external debt analysis.

3.25 Under a *forward-type contract*, the two counterparties agree to exchange an underlying item—real or financial—in a specified quantity, on a specified date, at an agreed contract (strike) price or, in the specific instance of a swap contract, the two counterparties agree to exchange cash flows, determined with reference to the price(s) of, say, currencies or interest rates, according to prearranged rules. The typical requirement under a foreign exchange forward contract to deliver or receive foreign currency in the future can have important implications for foreign currency liquidity analysis and is captured in the table in Table 7.7 in Chapter 7. Under an *option contract*, the purchaser of the option, in return for an option premium, acquires from the writer of the option the right but not the obligation to buy (call option) or sell (put option) a specified underlying item—real or financial—at an agreed contract (strike) price on or before a specified date. Throughout the life of the contract the writer of the option has a liability and the buyer an asset, although the option can expire worthless; the option will be exercised only if settling the contract is advantageous for the purchaser. Typical derivatives instruments include *futures* (exchange traded forward contract), *interest and cross-currency swaps*, *forward rate agreements*, *forward foreign exchange contracts*, *credit derivatives*, and various types of options.

3.26 *Other investment* (Table 3.4) covers all financial instruments other than those classified as direct

Table 3.4. Standard Components of the IIP: Other Investment

Assets	Liabilities
<i>Trade credits</i>	<i>Trade credits</i> ¹
General government	General government
Long-term	Long-term
Short-term	Short-term
Other sectors	Other sectors
Long-term	Long-term
Short-term	Short-term
<i>Loans</i>	<i>Loans</i> ¹
Monetary authorities	Monetary authorities
Long-term	Use of IMF credit and loans
Short-term	from the IMF
General government	Other long-term
Long-term	Short-term
Short-term	General government
Banks	Long-term
Long-term	Short-term
Short-term	Banks
Other sectors	Long-term
Long-term	Short-term
Short-term	Other sectors
<i>Currency and deposits</i>	Long-term
Monetary authorities	Short-term
General government	<i>Currency and deposits</i> ¹
Banks	Monetary authorities
Other sectors	Banks
<i>Other assets</i>	<i>Other liabilities</i> ¹
Monetary authorities	Monetary authorities
Long-term	Long-term
Short-term	Short-term
General government	General government
Long-term	Long-term
Short-term	Short-term
Banks	Banks
Long-term	Long-term
Short-term	Short-term
Other sectors	Other sectors
Long-term	Long-term
Short-term	Short-term

¹Instruments in these categories are debt liabilities to be included in external debt.

investment, portfolio investment, financial derivatives, or reserve assets. When owed to nonresidents, all the components of other investment—*trade credit, loans, currency and deposits, and other debt liabilities*—are included in the gross external debt position.

3.27 *Trade credits* consist of claims or liabilities arising from the direct extension of credit by suppliers for transactions in goods and services, and advance payments by buyers for goods and services

and for work in progress (or to be undertaken). Long- and short-term trade credits are shown separately. Trade-related loans provided by a third party, such as a bank, to an exporter or importer are not included in this category but under *loans*, below (see also the description of trade-related credit in Chapter 6).

3.28 *Loans* include those financial assets created through the direct lending of funds by a creditor (lender) to a debtor (borrower) through an arrangement in which the lender either receives no security evidencing the transactions or receives a nonnegotiable document or instrument. Collateral, in the form of either a financial asset (such as a security) or nonfinancial asset (such as land or a building) may be provided under a loan transaction, although it is not an essential feature. In the gross external debt position, loans include *use of IMF credit and loans from the IMF*.

3.29 If a loan becomes tradable and is, or has been, traded in the secondary market, the loan should be reclassified as a debt security. Given the significance of reclassification, there needs to be evidence of secondary market trading before a debt instrument is reclassified from a loan to a security. Evidence of trading on secondary markets would include the existence of market makers and bid-offer spreads for the debt instrument. The *Guide* encourages the separate identification of the outstanding value of any such loans reclassified.

3.30 Reverse security transactions and financial leases are two types of arrangements for which the change of ownership principle is not strictly adhered to.

3.31 A *reverse securities transaction* is defined to include all arrangements whereby one party legally acquires securities and agrees, under a legal agreement at inception, to return the same or equivalent securities on or by an agreed date to the same party from whom they acquired the securities initially. If the security taker under such a transaction provides cash funds, and there is agreement to reacquire the same or equivalent securities at a predetermined price at the contract's maturity, a loan transaction is recorded. This is the so-called collateralized loan approach to a *reverse securities transaction*, with the securities representing the collateral. These transactions include security repurchase agreements (repos),

securities lending involving cash, and sale/buy backs. The security provider under a reverse security transaction acquires a repo loan liability and the security taker a repo loan asset. If no cash is provided, no loan transaction is reported. Under the collateralized loan approach, the security is assumed not to have changed ownership and remains on the balance sheet of the security provider. A similar recording procedure is adopted for transactions where gold rather than securities is provided as collateral for cash (so-called gold swaps).

3.32 If the security taker sells the security acquired under a reverse security transaction, they record a negative position in that security. This treatment reflects economic reality in that the holder of the negative position is exposed to the risks and benefits of ownership in an equal and opposite way to the party who now owns the security (see also Appendix II). On-selling of gold by the gold taker, similarly reported as a negative holding, does not affect the gross external debt position because gold is an asset without any corresponding liability.

3.33 A *financial lease* is a contract under which a lessee contracts to pay rentals for the use of a good for most or all of its expected economic life. The rentals enable the lessor over the period of the contract to recover most or all of the costs of goods and the carrying charges. While there is not a legal change of ownership of the good, under a financial lease the risks and rewards of ownership are, de facto, transferred from the legal owner of the good, the lessor, to the user of the good, the lessee. For this reason, under statistical convention, the total value of the good is imputed to have changed ownership. So, the debt liability at the inception of the lease is defined as the value of the good and is financed by a loan of the same value, a liability of the lessee. The loan is repaid through the payment of rentals (which comprise both interest and principal payment elements) and any residual payment at the end of the contract (or alternatively, by the return of the good to the lessor).

3.34 *Currency and deposits* consists of notes and coin and both transferable and other deposits.⁶ Notes

⁶Because the IIP does not provide a short-term/long-term attribution, it is recommended that all currency and deposits are included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

and coin represent claims of a fixed nominal value usually on a central bank or government; commemorative coins are excluded. Transferable deposits consist of deposits that are (1) exchangeable on demand at par and without penalty or restriction, and (2) directly usable for making payments by check, giro order, direct debit/credit, or other direct payment facility. Other deposits comprise all claims represented by evidence of deposit—for example, savings and fixed-term deposits; sight deposits that permit immediate cash withdrawals but not direct third-party transfers; and shares that are legally (or practically) redeemable on demand or on short notice in savings and loan associations, credit unions, building societies, etc. Depending on national practice, gold that is borrowed (without cash being provided in exchange) from a nonresident could be classified by the borrower as a foreign currency deposit.

3.35 *Other assets/other liabilities* covers items other than trade credit, loans, and currency and deposits. Such assets and liabilities include liabilities of pension funds and life insurance companies to their nonresident participants and policyholders, claims on nonlife companies; capital subscriptions to international nonmonetary organizations; arrears (see below); and accounts receivable and payable, such as in respect of taxes, dividends declared payable but not yet paid, purchases and sales of securities, and wages and salaries. Short- and long-term other liabilities are shown separately as *other debt liabilities* in the gross external debt presentation.

3.36 *Arrears* are defined as amounts that are past due-for-payment and unpaid. Arrears can arise both through the late payment of principal and interest on debt instruments as well as through late payments for other instruments and transactions. For instance, a financial derivatives contract is not a debt instrument for reasons explained above, but if a financial derivatives contract comes to maturity and a payment is required but not made, arrears are created. Similarly, if goods are supplied and not paid for on the contract payment date or a payment for goods is made but the goods are not delivered on time, then arrears are created. These new debt liabilities should be recorded in the gross external debt position as *arrears*.

3.37 Payments may be missed for a variety of reasons beyond simply the inability or unwillingness of the debtor to meet its payment obligations. Some-

Table 3.5. Standard Components of the IIP: Reserve Assets

Assets
Gold
Special drawing rights
Reserve position in the IMF
Foreign exchange
Currency and deposits
With monetary authorities
With banks
Securities
Equities
Bonds and notes
Money market instruments
Financial derivatives (net)
Other claims

times arrears arise not from the ability of the original debtor to provide national currency but from the inability of the monetary authorities to provide foreign exchange to a domestic entity, so preventing that entity from servicing its foreign currency debt. These so-called *transfer arrears* remain those of the original debtor sector. Another circumstance may be when the creditor has agreed in principle to reschedule debt—that is, reorganize payments that are

falling due—but the agreement has yet to be signed and implemented. In the meantime, payments due under the existing agreement are not made, and arrears arise—so-called *technical arrears*.⁷ Such arrears might typically arise in the context of Paris Club agreements between the time of the Paris Club rescheduling session and the time when the bilateral agreements are signed and implemented. If the agreement in principle lapses before the agreement is signed, then any accumulated arrears are no longer *technical arrears*.

3.38 Reserve assets (Table 3.5) consist of those external assets that are readily available to and controlled by the monetary authorities for direct financing of payments imbalances, for indirectly regulating the magnitude of such balances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes.⁸ By definition, reserve assets are not included in the gross external debt position.

⁷If the creditor bills and the debtor pays on the basis of the new agreement, even though it is not signed, no arrears arise.

⁸In addition to *BPM5*, Chapter XXI, see *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* (Kester, 2001), which also provides guidance on the measurement of official reserve assets.

4. Presentation of the Gross External Debt Position

Introduction

4.1 This chapter provides a table for the presentation of the gross external debt position and related memorandum tables. Data compiled using the concepts outlined in the previous chapters and presented in the format of this table are essential to providing a comprehensive and informed picture of the gross external debt position for the whole economy, and so

their dissemination on a frequent basis is encouraged (see also Box 4.1).

4.2 In disseminating data on the gross external debt position, compilers are encouraged to provide methodological notes explaining the concepts and methods used in compiling the data. For any presentation of gross external debt position it is particularly important for the compiler to indicate whether

Box 4.1 SDDS and GDDS Specifications Regarding Dissemination of External Debt Statistics

In the aftermath of the 1994–95 international financial crisis, the Interim Committee (now called the International Monetary and Financial Committee) of the IMF's Board of Governors endorsed the establishment of a two-tier standard to guide member countries in the provision of economic and financial data to the public. The first tier, named the Special Data Dissemination Standard (SDDS), was approved by the IMF's Executive Board on March 29, 1996. The other tier, named the General Data Dissemination System (GDDS), was approved on December 19, 1997.¹

The purpose of the SDDS is to guide IMF member countries in the provision to the public of comprehensive, timely, accessible, and reliable economic and financial statistics in a world of increasing economic and financial integration. The SDDS is geared to those countries that have, or might seek, access to international capital markets. Subscription to the SDDS is voluntary. By subscribing to the SDDS, members undertake to provide the supporting information to the IMF and to observe the various elements of the SDDS.

With respect to the external debt data category, the SDDS prescribes the dissemination of quarterly data with a one-quarter lag, covering four sectors (general government, monetary authorities, the banking sector, and other). Furthermore, the data are to

be disaggregated by maturity—short- and long-term—and provided on an original maturity basis and by instrument, as set out in *BPM5*. The SDDS encourages countries to disseminate supplementary information on future debt-service payments, in which the principal and interest components are separately identified, twice yearly for the first four quarters and the following two semesters ahead, with a lag of one quarter. The data should also be broken down into sector—general government, monetary authorities, the banking sector, and other sectors. The dissemination of a domestic/foreign currency breakdown of external debt with quarterly periodicity and timeliness is also encouraged.

The GDDS is a structured process focused on data quality that assists countries in adapting their statistical systems to meet the evolving requirements of the user community in the areas of economic management and development. Participating countries voluntarily commit to adhering to sound statistical practices in developing their statistical systems.

The core data category for external debt in the GDDS includes public and publicly guaranteed debt, and the associated debt-service schedule. Recommended good practice would be that the stock data, broken down by maturity, be disseminated with quarterly periodicity and timeliness of one or two quarters after the reference date. In addition, the associated debt-service schedules should be disseminated twice yearly, within three to six months after the reference period, and with data for four quarters and two semesters ahead. Data on nonguaranteed private debt and debt-servicing schedules, with annual periodicity, are encouraged data categories to be disseminated within six to nine months after the reference period.

¹On March 29, 2000, the IMF's Executive Board made a number of amendments to the SDDS, which included the introduction of a separate data category for external debt. At the same time, the Board amended the GDDS to include public and publicly guaranteed external debt and a debt-service schedule as a core data category.

traded instruments are valued at nominal or market value,¹ and whether interest costs that have accrued but are not yet payable are included, or not.

Presentation Table

4.3 The presentation of the gross external debt position is set out in Table 4.1.

- The first level of disaggregation is by institutional sector. The primary disaggregation is by the four sectors of the compiling economy described in the previous chapter—*general government*, *monetary authorities*, *banks*, and *other sectors*. A disaggregation of the other sectors into *nonbank financial corporations*, *nonfinancial corporations*, and *other sectors (households and nonprofit institutions serving households)* is provided.

Intercompany lending between entities in a direct investment relationship is separately presented because the nature of the relationship between debtor and creditor is different from that for other debt, and this affects economic behavior. Whereas a creditor principally assesses claims on an unrelated entity in terms of the latter's ability to repay, claims on a related entity may be additionally assessed in terms of the overall profitability and economic objectives of the multinational operation.

- The second level of disaggregation is by the maturity of external debt—short-term and long-term on an original maturity basis. A maturity attribution is not provided for intercompany lending, but in separately identifying arrears (see below), which by definition are short-term liabilities, a partial short-term attribution is provided.²
- The third level of disaggregation is by type of debt instrument. The debt instruments are described in Chapter 3.

4.4 *Other debt liabilities (other liabilities in the IIP)*, and *intercompany lending* are explicitly subdivided between *arrears* and *other*. *Arrears* are separately identified because such information is of particular analytical interest to those involved in external debt analysis, since the existence of arrears

¹A table reconciling nominal and market valuation of traded debt instruments is provided in Chapter 7 (Table 7.13).

²If a short-/long-term maturity attribution of intercompany lending data is available to the compiler on an original maturity basis, the *Guide* encourages dissemination of these data.

Table 4.1. Gross External Debt Position: By Sector

End-Period
General Government
Short-term
Money market instruments
Loans
Trade credits
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Trade credits
Other debt liabilities ¹
Monetary Authorities
Short-term
Money market instruments
Loans
Currency and deposits ²
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ²
Other debt liabilities ¹
Banks
Short-term
Money market instruments
Loans
Currency and deposits ²
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ²
Other debt liabilities ¹
Other Sectors
Short-term
Money market instruments
Loans
Currency and deposits ²
Trade credits
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ²
Trade credits
Other debt liabilities ¹

Table 4.1 (concluded)

End-Period
Other Sectors (continued)
Nonbank financial corporations
Short-term
Money market instruments
Loans
Currency and deposits ²
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ²
Other debt liabilities ¹
Nonfinancial corporations
Short-term
Money market instruments
Loans
Trade credits
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Trade credits
Other debt liabilities ¹
Households and nonprofit institutions serving households (NPISH)
Short-term
Money market instruments
Loans
Trade credits
Other debt liabilities ¹
Arrears
Other
Long-term
Bonds and notes
Loans
Trade credits
Other debt liabilities ¹
Direct Investment: Intercompany Lending
Debt liabilities to affiliated enterprises
Arrears
Other
Debt liabilities to direct investors
Arrears
Other
Gross External Debt
¹ Other debt liabilities are other liabilities in the IIP statement.
² It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

indicates the extent to which an economy has been unable to meet its external obligations. All *other debt liabilities* and *intercompany lending* that are not *arrears* are classified as *other*.

4.5 For some economies arrears are very significant. For such economies, a further disaggregation of arrears into arrears of principal, arrears of interest, interest on arrears of principal, and interest by institutional sector is encouraged. Also, if the amounts of technical and/or transfer arrears are significant, it is encouraged that data on these amounts be separately identified and disseminated by the compiling economy.

4.6 The chapter also presents tables for memorandum items, data on which, depending on an economy's circumstances, can enhance the analytical usefulness of the data presented in the gross external debt position.

Memorandum Items

4.7 To enhance analytical usefulness, various memorandum data series might be presented along with the presentation of the gross external debt position. The first memorandum item discussed below covers outstanding liabilities arising from periodic interest costs that have accrued and are not yet payable. The other three memorandum items—financial derivatives, equity liabilities, and debt securities issued by residents that are involved in reverse security transactions between residents and nonresidents—provide information on instruments that are not captured in the gross external debt position but that potentially could render an economy vulnerable to solvency and, particularly, liquidity risks.

Periodic Interest Costs That Have Accrued and Are Not Yet Payable: Outstanding Liabilities

4.8 A memorandum table is set out in Table 4.2 for the presentation of data on outstanding liabilities arising from periodic interest costs that have accrued and are not yet payable. Periodic interest costs are those interest costs that result in an interest payment, as defined in Chapter 2. In attributing these liabilities by sector and maturity in this table, compilers should be consistent with their approach in compiling gross external debt position data. For example,

Table 4.2. Periodic Interest Costs That Have Accrued and Are Not Yet Payable: Outstanding Liabilities

End-Period
General Government
Short-term
Long-term
Monetary Authorities
Short-term
Long-term
Banks
Short-term
Long-term
Other Sectors
Short-term
Long-term
Direct Investment: Intercompany Lending
Debt liabilities to affiliated enterprises
Debt liabilities to direct investors
Total Economy

interest costs attributed to short-term government debt in the gross external debt position should be attributed to general government, short-term in this table. A more detailed disaggregation of these interest cost liabilities by type of instrument could be provided, if necessary.

4.9 Separate data on outstanding liabilities arising from periodic interest costs that have accrued and are not yet payable allow for the calculation of the gross external debt position excluding these liabilities, which in turn facilitates comparisons both across countries and across time—that is, allows comparisons with gross external debt position data that might exclude such liabilities produced either by other countries, or by the same country in earlier time periods. Information on such liabilities also provides a broad indication of the scale of short-term interest payments to be made (the more frequent these data are disseminated, the more relevant this information), and can help clarify national practice on the treatment of accrual of interest costs.

Financial Derivatives

4.10 A memorandum table for the presentation of position data on financial derivatives is provided in

Table 4.3. Financial Derivatives Position

End-Period
Liabilities
General government
Monetary authorities
Banks
Other sectors
Nonbank financial corporations
Nonfinancial corporations
Households and nonprofit institutions serving households (NPISH)
<i>Total</i>
Assets¹
General government
Monetary authorities
Banks
Other sectors
Nonbank financial corporations
Nonfinancial corporations
Households and nonprofit institutions serving households (NPISH)
<i>Total</i>
Total Economy

¹Excludes financial derivatives that pertain to reserve asset management and are included in reserve assets data.

Table 4.3. Because of the use of financial derivatives to hedge financial positions as well as to take open positions, these contracts can add to an economy's liabilities and, if used inappropriately, cause significant losses. However, in comparing financial derivatives data with external debt, the user should be aware that financial derivatives might be hedging asset positions, or a whole portfolio of assets and liabilities. In this regard, the net external debt position presentation in Chapter 7 is also relevant.

4.11 The table includes gross assets as well as gross liabilities because of the market practice of creating offsetting contracts, and the possibility of forward-type instruments to switch from asset to liability positions, and vice versa, from one period to the next. For instance, a borrower hedging a foreign currency borrowing with a forward contract might find that the value of the hedge switches from asset to liability position from period to period depending on the movement in exchange rates. To present only the liability position in financial derivatives along with gross external debt would imply that the foreign currency borrowing was only

Table 4.4. Equity Liability Position

	End-Period
Banks	
Other sectors	
Nonbank financial corporations	
Nonfinancial corporations	
<i>Total</i>	
Direct investment in reporting economy: Equity capital and reinvested earnings	
Total Economy	

hedged when the forward contract was in a liability position, so creating a misleading impression. Thus, financial derivatives liability positions should be considered alongside financial derivatives asset positions. If an economy includes financial derivatives in its reserve assets data, because they pertain to reserve asset management, these financial derivatives should be excluded from this memorandum item.

Equity Liabilities

4.12 Table 4.4 shows a memorandum table for the presentation of position data on equity liabilities—that is, both equity securities, and equity capital and reinvested earnings of direct investment enterprises. Similar to financial derivatives positions, equity securities can add to an economy's liabilities and so could potentially be a source of vulnerability. Also, equity capital in direct investment enterprises, particularly branches/unincorporated enterprises, could be withdrawn.

4.13 In some instances, resident mutual funds are used as a vehicle by nonresident investors to acquire positions in domestic debt securities. If the nonresidents decide to sell these investments, the sales can have a direct impact on the domestic debt securities market. As explained in Chapter 3, such investments by nonresidents are classified as equity liabilities of the resident economy. Nonetheless, identifying equity investment in mutual funds, under *nonbank financial corporations* in the table, might be considered. Further, if the amounts are significant and concentrated in mutual funds that are entirely or almost entirely owned by nonresidents, memoranda data on

Table 4.5. Debt Securities Acquired Under Reverse Security Transactions:¹ Positions

	End-Period
Debt securities issued by residents and acquired by nonresidents from residents (+)	
Debt securities issued by residents and acquired by residents from nonresidents (-)	
<p>¹Reverse security transactions include all arrangements whereby one party acquires securities and agrees, under a legal agreement at inception, to return the same or similar securities on or by an agreed date to the same party from whom they acquired the securities initially. The acquiring party must have full title to the securities such that they can be sold to a third party. These arrangements can include those known as repurchase agreements (repos), security loans, and sell/buy backs.</p>	

the investments of these mutual funds might also be disseminated.

Resident-Issued Debt Securities Involved in Reverse Security Transactions

4.14 In financial markets, activity in reverse security transactions is commonplace. It is one method of providing an investor with financial leverage in the debt markets—that is, greater exposure to market price movements than the value of own funds invested. To understand the dynamics of this leverage activity, and to track developments and hence potential vulnerability, a memorandum table is provided in Table 4.5 for the presentation of position data on debt securities issued by residents that are acquired from or provided to nonresidents under reverse security transactions. Such data would also help to interpret external debt, in particular security debt data when reverse security activity is significant, and could be affecting the recorded position. For debt securities to be included in this memorandum table, the acquiring party must have full title to the securities such that they can be sold to a third party.

4.15 In the table, the total value of debt securities issued by residents that have been acquired by nonresidents from residents under outstanding reverse security transactions, even if subsequently on-sold, are included with a positive sign. The total value of debt securities issued by residents that have been acquired by residents from nonresidents under outstanding reverse security transactions, even if

subsequently on-sold, are included with a negative sign. This sign convention tracks the change of ownership of debt securities. Other things being equal, if nonresidents acquire these securities under reverse security transactions, the security claims on the resident economy are greater than recorded in the gross external debt position, whereas if residents acquire these securities from nonresidents under

reverse security transactions, the debt security claims on the resident economy are less than recorded in the gross external debt position. Appendix II provides more information on reverse security transactions and explains how different types of reverse security transactions should be recorded in the gross external debt position and in this memorandum table.

5. Public and Publicly Guaranteed External Debt

Introduction

5.1 For countries in which there is a particular interest in public sector debt, this chapter provides a table for the presentation of the gross external debt position in which the role of the public sector is highlighted. The data for this table should be compiled using the concepts outlined in Chapters 2 and 3, except the debt of resident entities should be attributed according to whether the debtor is publicly owned or not, and if not, by whether the debt instrument is guaranteed or not by a public sector entity. For convenience, this presentation is described as being a “public-sector-based approach” and is consistent with the framework of the World Bank’s Debtor Reporting System.

5.2 In economies where public sector external debt is dominant, the presentation table provided in this chapter could be the primary one used for disseminating data. Indeed, in circumstances where the public sector is centrally involved in external debt borrowing activity, both as a borrower or guarantor, it is essential. As private sector debt becomes more important in the economy, more detailed breakdowns of private sector debt are required, such as provided in the previous chapter, but the presentation set out in this chapter would remain relevant for monitoring external debt liabilities of the public sector.

5.3 Because the concepts for its measurement remain consistent throughout the *Guide*, the gross external debt position for the whole economy—depending on whether traded debt instruments are valued at nominal or market value—should be the same regardless of whether the presentation table in this or the previous chapter is used to disseminate such data.

5.4 In disseminating data, compilers are encouraged to provide methodological notes explaining

the concepts and methods used in compiling the data. For any presentation of gross external debt position, it is particularly important for the compiler to indicate whether traded instruments are valued at nominal or market value, and whether interest costs that have accrued but are not yet payable are included, or not.

Definitions

5.5 For the presentation of the external debt position in a public-sector-based approach, the first determination is whether or not a resident entity is in the public sector.¹ In comparison with the institutional sector approach outlined in Chapter 3, the *public sector* includes the general government, monetary authorities, and those entities in the banking and other sectors that are public corporations. A *public corporation* is defined as a nonfinancial or financial corporation that is subject to control by government units, with control over a corporation defined as the ability to determine general corporate policy by choosing appropriate directors, if necessary. Control can be established through government ownership of more than half of the voting shares or otherwise controlling more than half of the shareholder voting power (including through ownership of a second public corporation that in turn has a majority of the voting shares).² In addition, it may be possible to exercise control through special legislation, decree, or regulation that empowers the government to determine corporate

¹For more details, please refer to the World Bank’s *Debtor Reporting System Manual* (World Bank, 2000), available on the Internet at http://www.worldbank.org/data/working/DRS/drs_manual.doc.

²This definition is derived from the 1993 SNA and the IMF’s *Government Finance Statistics Manual* (IMF, 2001). It is consistent with ESA95 (Eurostat, 1996) and *ESA95 Manual on Government Deficit and Debt* (Eurostat, 2000), which also provide additional guidance on recognizing such corporations.

policy or to appoint directors. Any domestic institutional unit not meeting the definition of public sector is to be classified as *private sector*. In terms of institutional sector attribution, the classification of a public corporation as a monetary authority (central bank), bank, nonbank financial corporation, or non-financial corporation depends on the nature of the activity it undertakes.

5.6 Publicly guaranteed private sector external debt is defined as the external debt liabilities of the private sector, the servicing of which is contractually guaranteed by a public entity resident in the same economy as the debtor.³ The private sector can include resident entities in the banks and other sectors. External debt of the private sector that is not contractually guaranteed by the public sector resident in the same economy is classified as *nonguaranteed private sector external debt*. If external debt of the private sector is partially guaranteed by the public sector resident in the same economy, such as if principal payments or interest payments alone are guaranteed, then only the present value of the payments guaranteed should be included within *publicly guaranteed private sector external debt*, with the nonguaranteed amount included within *nonguaranteed private sector external debt*.

Presentation of Public and Publicly Guaranteed External Debt Position

5.7 The presentation of the gross external debt position on the basis of a public-sector-based approach is set out in Table 5.1.

- The first level of disaggregation is by sector. The primary disaggregation is between public and publicly guaranteed debt, and nonguaranteed private sector external debt. Because of the nature of the relationship between debtor and creditor, intercompany lending between entities in a direct investment relationship is separately identified under each category, but when combined equals

³External debt for which guarantees are provided to the creditor by a public sector entity resident in a different economy from that of the debtor is not covered under this definition.

Table 5.1. Gross External Debt Position: Public and Publicly Guaranteed Debt and Nonguaranteed Private Sector Debt

End-Period
Public and Publicly Guaranteed Debt
Short-term
Money market instruments
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
Direct investment: Intercompany lending
Debt liabilities to affiliated enterprises
Arrears
Other
Debt liabilities to direct investors
Arrears
Other
Nonguaranteed Private Sector External Debt
Short-term
Money market instruments
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
Arrears
Other
Long-term
Bonds and notes
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
Direct investment: Intercompany lending
Debt liabilities to affiliated enterprises
Arrears
Other
Debt liabilities to direct investors
Arrears
Other
Gross External Debt

¹It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

²Other debt liabilities are other liabilities in the IIP statement.

Table 5.2. Gross External Debt Position: Public Sector Debt and Publicly Guaranteed Private Sector Debt

	End-Period
Public Sector External Debt	
Short-term	
Money market instruments	
Loans	
Currency and deposits ¹	
Trade credits	
Other debt liabilities ²	
Arrears	
Other	
Long-term	
Bonds and notes	
Loans	
Currency and deposits ¹	
Trade credits	
Other debt liabilities ²	
Direct investment: Intercompany lending	
Debt liabilities to affiliated enterprises	
Arrears	
Other	
Debt liabilities to direct investors	
Arrears	
Other	
Total	
Publicly Guaranteed Private Sector External Debt	
Short-term	
Money market instruments	
Loans	
Currency and deposits ¹	
Trade credits	
Other debt liabilities ²	
Arrears	
Other	
Long-term	
Bonds and notes	
Loans	
Currency and deposits ¹	
Trade credits	
Other debt liabilities ²	
Direct investment: Intercompany lending	
Debt liabilities to affiliated enterprises	
Arrears	
Other	
Debt liabilities to direct investors	
Arrears	
Other	
Total	

¹It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

²Other debt liabilities are other liabilities in the IIP statement.

direct investment: intercompany lending for the total economy as presented in the previous chapter.

- The second level of disaggregation is by the maturity of external debt—short-term and long-term on the basis of original maturity. A maturity attribution is not provided for intercompany lending, but in separately identifying arrears (see below), which by definition are short-term liabilities, a partial short-term attribution is provided.⁴
- The third level of disaggregation is by type of debt instrument, as described in Chapter 3. Arrears are separately identified, because such information is of particular analytical interest.

5.8 Memoranda data, on a public sector basis, on outstanding liabilities arising from periodic interest costs that have accrued and are not yet payable, financial derivatives, equity liabilities, and reverse security transactions could be provided along with Table 5.1. These memorandum items are described in Chapter 4.

5.9 Table 5.2 separates public sector external debt and publicly guaranteed private sector external debt. Such a separation allows identification of external debt owed by the public sector and, combined with the information in Table 5.1, external debt of the private sector.

5.10 Further, as defined in paragraphs 5.5 and 5.6 above, public sector data can be attributed to general government, monetary authorities, banks, and other sectors, while private sector information can be attributed to banks and other sectors. In this regard, it is recommended that if detailed records are kept, the institutional sector of the debtor be identified, so as to allow an economy that is presenting data on a public sector basis to also compile data on an institutional sector basis.

⁴If a short-/long-term maturity attribution of intercompany lending data is available to the compiler on an original maturity basis, the *Guide* encourages dissemination of these data.

6. Further External Debt Accounting Principles

Introduction

6.1 Data compiled and presented using the concepts described in the previous chapters provide comprehensive coverage and an informed picture of the gross external debt position for the whole economy and/or the public sector. However, such data do not provide a complete picture of emerging vulnerabilities to solvency and liquidity risk. For instance, the currency and interest rate composition of external debt liabilities, and the pattern of future payments, might all be potential sources of vulnerability. To assist in compiling additional data series of analytical use in understanding the gross external debt position, this chapter provides further accounting principles. These principles, as well as those described in earlier chapters, are drawn upon to provide illustrative presentation tables in the next chapter.

6.2 This chapter discusses further accounting principles under three broad headings:

- Sectors, maturity, and instruments;
- Specific characteristics of external debt; and
- Principles for the compilation of debt-service and other payment schedules.

Sectors, Maturity, and Instruments

Creditor Sectors

6.3 Information on the nonresident creditor sector that owns external debt is disseminated by many economies. The sectors defined in Chapter 3—general government, monetary authorities, banks, and other sectors—and in Chapter 5—public and private sectors—are creditor as well as debtor sectors. Other commonly identified creditor sectors are *multilateral (international) organizations* and *official creditors*.

6.4 *Multilateral organizations* are established by political agreements among member countries that have the status of international treaties. Multilateral

organizations are accorded appropriate privileges and immunities and are not subject to the laws and regulations of the economies in which the organizations are located. Typically these organizations provide nonmarket services of a collective nature for the benefit of members and/or financial intermediation, or the channeling of funds between lenders and borrowers in different economies. As creditors, multilateral organizations are sometimes also referred to as *official multilateral creditors*.

6.5 *Official creditors* are public sector creditors, including multilateral organizations. External debt owed to official creditors might also include debt that was originally owed to private creditors but that was guaranteed by a public entity in the same economy as the creditor (for example, an export credit agency). *Official bilateral creditors* are official creditors in individual countries. This category of creditor is particularly relevant in the context of Paris Club discussions. The Paris Club is an umbrella arrangement under which creditors and debtors meet, discuss, and arrange debt-relief packages and is not an institutional unit in its own right (see Box 8.2 in Chapter 8).

Remaining Maturity

6.6 While it is recommended that in the gross external debt position the short-term/long-term maturity attribution be made on the basis of original maturity, there is also analytical interest in attribution on the basis of remaining maturity. Remaining-maturity measures (sometimes referred to as residual maturity measures) provide an indication of when payments will fall due, and so of potential liquidity risks facing the economy. Particularly important is information on payments coming due in the near term.

6.7 The *Guide* recommends that short-term remaining maturity be measured by adding the value of outstanding short-term external debt (original maturity) to the value of outstanding long-term external debt

(original maturity) due to be paid in one year or less. Conceptually, at the reference date the value of outstanding long-term external debt (original maturity) due to be paid in one year or less is the discounted value of payments to be made in the coming year, both interest and principal.¹ The value of outstanding long-term (original maturity) debt due to be paid over one-year ahead is classified as long-term debt on a remaining-maturity basis.

6.8 The information content provided is one reason for recommending such an approach. Short-term debt on an original maturity basis is identifiable from the gross external debt position. Measuring the value of outstanding long-term external debt (original maturity) falling due in one year or less may raise practical difficulties, in which instance, one proxy measure that might be used is the undiscounted value of principal payments on long-term external debt obligations (original maturity basis) due to mature in one year or less. This proxy measure is incomplete in its coverage of interest payments falling due in the coming year but can be compiled using the principles for projecting payments in a debt-service schedule (see below).²

Trade-Related Credit

6.9 In the *Guide*, trade credit as presented in the gross external debt position is defined in Chapter 3—the direct extension of credit by suppliers for transactions in goods and services, and advance payments by buyers for goods and services, and for work in progress (or to be undertaken)—consistent with the 1993 *SNA* and *BPM5*. To assist in compiling additional data series, this chapter introduces a wider con-

cept of trade-related credit, which also captures other credits provided to finance trade activity, including through banks. It is defined as including trade credit, trade-related bills (see below), and credit provided by third parties to finance trade, such as loans from a foreign financial or export credit institution to the buyer. A table for presenting data on trade-related credit is provided in the next chapter.

6.10 A particularly difficult issue of classification arises from bills drawn on the importer and provided to the exporter, which are subsequently discounted by the exporter with a financial institution. These instruments might be regarded by the importer as the direct extension of credit by the exporter but once discounted become a claim by a third party on the importer. Where an instrument is provided to the exporter with such characteristics that it is tradable in organized and other financial markets, such as a promissory note, it should be classified as a security in the gross external debt position and included in the concept of trade-related credit.

6.11 If the importer’s bill has been endorsed (or “accepted”) by a bank in the importer’s own economy in order to make the bill acceptable to the exporter, it is known as a banker’s acceptance, classified as a security in the gross external debt position, and included in the concept of trade-related credit. Banker’s acceptances are to be classified as a financial liability of the bank (or, if not a bank, the financial institution that has endorsed the bill) because they represent an unconditional claim on the part of the holder and an unconditional claim on the bank. However, national practices and variations in the nature of these acceptances may suggest flexibility in the application of this guideline.

Specific Characteristics of External Debt

Currency Composition

6.12 Domestic currency is that which is legal tender in the economy and issued by the monetary authority for that economy or for the common currency area to which the economy belongs.³ Under this definition,

¹For those economies that do not wish to include interest costs that have accrued but are not yet payable in the gross external debt position for all instruments, the nominal value of outstanding long-term external debt at the reference date that is due to be paid in one year or less is the sum of principal payments on this debt to be made in the coming year, except where the debt is in the form of securities issued at a discount, in which instance the principal amount to be paid will exceed the nominal amount outstanding at the reference date.

²Some countries that have debt primarily in the form of instruments on which principal is paid only at maturity attribute the full value of each long-term (original maturity) debt instrument on a remaining basis by when the instrument is due to mature. However, from the viewpoint of liquidity risk analysis, this method is imperfect because payments coming due in the near term, such as interest and partial payments of principal, are not captured within short-term remaining-maturity debt if the debt instrument has a maturity date further than a year ahead.

³In this context, a common currency area is one in which more than one economy belongs and has a regional central bank with the legal authority to issue the same currency within the area. To belong to this area, the economy must be a member of the regional central bank.

an economy that uses as its legal tender a currency issued by a monetary authority of another economy—such as U.S. dollars—or of a common currency area to which it does not belong should classify the currency as a foreign currency, although domestic transactions are settled in this currency.

6.13 The attribution of external debt by currency is primarily determined by characteristics of the future payment(s). Foreign currency debt is defined as debt that is payable in a currency other than the domestic currency; a subcategory of foreign currency debt is debt that is payable in a foreign currency but with the amounts to be paid linked to a domestic currency (domestic-currency-linked debt). Foreign-currency-linked debt is debt that is payable in domestic currency but with the amounts to be paid linked to a foreign currency. Domestic currency debt is debt that is payable in the domestic currency, and not linked to a foreign currency. In the unusual instance of interest payments to be paid in a foreign currency but principal payments to be paid in a domestic currency, or vice versa, only the present value of the payments to be paid in a foreign currency need be classified as foreign currency debt (and similarly for foreign-currency-linked debt).

6.14 In attributing external debt by type of foreign currency—U.S. dollar, euro, Japanese yen, etc.—the currency to which payments are linked is the determining criterion. Some types of foreign currency borrowing are denominated in more than one currency. However, if the amounts to be paid on such borrowing are linked to one specific currency, the borrowing should be attributed to that currency. Otherwise, compilers are encouraged to disaggregate such multi-currency borrowing by the component currencies. If, for any reason at the time the data are compiled for a particular reference date, the amounts attributable to each currency at that date are not known with precision, the borrowing should be attributed to each type of currency using the latest firm information available to the compiler—such as the currency attribution at the previous reference date together with any known payments in specific currencies made during the subsequent period—and revised once firm information for the new reference date are known.⁴

⁴For World Bank currency pool loans, while the composition of the currency pool changes on a daily basis, the currency ratios have been maintained within narrow limits since 1991. In the absence of other information, debtors may wish to report the currency compo-

Interest Rates

Variable- and fixed-rate external debt

6.15 Variable-rate external debt instruments are those on which interest costs are linked to a reference index—for example, LIBOR (London inter-bank offered rate), or the price of a specific commodity, or the price of a specific financial instrument that normally changes over time in a continuous manner in response to market pressures. All other debt instruments should be classified as fixed-rate. Interest on external debt that is linked to the credit rating of another borrower should be classified as fixed-rate because credit ratings do not change in a continuous manner in response to market pressures, whereas interest on external debt that is linked to a reference price index should be classified as variable-rate, provided that the price(s) that are the basis for the reference index are primarily market-determined.

6.16 The classification of an instrument can change over time, if, say, it switches from fixed to variable rate. For instance, interest may be fixed for a certain number of years and then becomes variable. While a fixed rate is paid, the instrument is to be classified as fixed-rate debt, and when it switches to variable rate it is classified as variable-rate debt. If interest is linked to a reference index or commodity price or financial instrument price but is fixed unless the reference index or price passes a particular threshold, it should be regarded as fixed-rate. But if thereafter interest becomes variable, then it should be reclassified as a variable-rate instrument. Alternatively, if interest is variable-rate until it reaches a predetermined ceiling or floor, it becomes fixed-rate debt when it reaches that ceiling or floor.

6.17 As in *BPM5*, when the value of the principal is indexed, the change in value resulting from indexation—periodically and at maturity—is classified as interest. So, if principal only is indexed, such debt is to be classified as variable-rate regardless of whether interest is fixed or variable, provided that the reference index meets the criterion above: it normally changes over time in a continuous manner in response to market pressures.

sition of currency pool loans as 30 percent U.S. dollar, 30 percent euro, 30 percent Japanese yen, and 10 percent other currencies (until or unless the World Bank changes its ratio limits).

Average interest rates

6.18 The average interest rate is the weighted-average level of interest rates on the outstanding gross external debt as at the reference date. The weights to be used are determined by the value in the unit of account of each borrowing as a percentage of the total. For example, for the general government sector the weight given to the interest rate on each external debt instrument equals the value in the unit of account of that debt as a percentage of total external debt for the general government sector. Similarly, the weight given to the average level of interest rates for the general government sector when calculating the average interest rate for the whole economy is equal to the total value in the unit of account of general government external debt as a percentage of total economy-wide external debt.

6.19 The relevant interest rate level for each debt instrument is affected by whether it has a fixed- or variable-linked interest rate. If the interest rate is contractually fixed, then this rate should be used, taking account of any discount and premium at issuance. If the rate of interest had been variable in the past but is now fixed, the current fixed-rate should be used. For variable-rate instruments, the rate of interest on each instrument should be the rate accruing on the reference day. In other words, usually variable rates of interest are reset on a periodic basis, and it is the level of the interest rate applicable on the reference day that should be used. If the interest rate is reset on the reference date, that rate should be reported and not the previous interest rate. If for any reason the variable rate is not observable, then the level of the reference index or appropriate price on the reference date, or, if the link is to a change in the reference index, the recorded change for the relevant period up to the reference date, or the closest relevant time period available, together with any existing additional margin the borrower needs to pay, should be used to calculate the interest rate level.

6.20 For calculating the weighted average of interest rates agreed on new borrowing during the period, the interest rates recorded would be those established at the time of the borrowing. If the interest rate is contractually fixed, then this rate should be used. For variable-rate borrowing, the rate of interest on each instrument should be that which is accruing on the day the claim is established. The weights to be used in compiling average interest rate data are

determined by the value in the unit of account of each borrowing, on the date the claim was established, as a percentage of the total borrowed during the period.

Location of Securities Issuance

6.21 Debt securities issued by a resident of the same economy in which the security is issued are to be classified as domestically issued, regardless of the currency of issue. All other issues are to be classified as foreign issued. If there is uncertainty over the location of issue, then the following criteria should be taken into account in descending order of preference to determine whether a resident of the economy has issued a domestic or a foreign debt security:

- The debt security is listed on a recognized exchange in the domestic economy (domestic issue) or in a foreign economy (foreign security).
- The debt security has an International Security Identification Number (ISIN) with a country code the same as the legal domicile of the issuer, and/or is allocated a domestic security code by the domestic national numbering agency (domestic security). Or the debt security has an ISIN code with a country code different from that where the issuer is legally domiciled and/or has a foreign security code issued by a foreign national numbering agency (foreign security).
- The security is issued in a domestic currency (domestic issue), as defined in paragraph 6.12 above, or in a foreign currency (foreign issue).

Concessional Debt

6.22 There is no unique definition of concessional-ity, and the *Guide* does not provide nor recommend one. Nonetheless, the definition of the OECD's Development Assistance Committee (DAC)⁵ is commonly used. Under the DAC definition, concessional lending (that is, lending extended on terms that are substantially more generous than market terms) includes (1) official credits with an original grant element of 25 percent or more using a 10 percent rate of discount (that is, where the excess of the face value of a loan from the official sector over the sum of the discounted future debt-service payments to be

⁵The Development Assistance Committee of the OECD was created in 1960. Its membership at mid-2001 comprised 22 countries and the Commission of the European Union.

made by the debtor is 25 percent or more using a 10 percent rate of discount); and (2) lending by the major regional development banks (African Development Bank, Asian Development Bank, and the Inter-American Development Bank) and from the IMF and World Bank, with concessionality determined on the basis of each institution's own classification of concessional lending. All external debt not classified as concessional should be classified as nonconcessional.

Debt-Service and Other Payment Schedules

6.23 A payment schedule provides a projection of future payments, at a reference date, based on a certain set of assumptions that are likely to change over time. A debt-service payment schedule projects payments on the outstanding gross external debt position at the reference date and helps in the assessment of liquidity risk by allowing the data user, and debtor, to monitor whether a bunching of payments is developing regardless of the original maturity of the debt instrument. For the debtor, early warning of such bunching might allow countervailing action to be taken.

6.24 Because the projection of a payment schedule requires assumptions to be made, to assist compilers, some guidance is provided below on the assumptions to apply. In compiling payment schedules, the *Guide* encourages the compiler to make best efforts in projecting payments. Consistent with the definitions in Chapter 2 (paragraph 2.5), in the debt-service payment schedule, interest payments are periodic payments of interest costs, while principal payments are all other payments that reduce the principal amount outstanding.

Projected Payments of Foreign Currency External Debt

6.25 External debt payments may be required in a currency different from the unit of account used for presenting data in the debt-service payment schedule. For such external debt payments, projected payments should be converted to the unit of account using the market exchange rate (that is, the midpoint between the buying and the selling spot rates) prevailing on the reference date (that is, the last day before the start of the forward-looking period). In

other words, if a debt-service payment schedule is drawn up for external debt outstanding on an end-calendar-year reference date, then the exchange rate prevailing at the end of the calendar year (on the last day of that year) should be used.⁶

6.26 For borrowing in multicurrencies, payments should be projected with reference to the component currencies of the borrowing and to the market exchange rates (the midpoint between the buying and the selling spot rates) prevailing on the reference date. For World Bank currency pool loans, future payments should be projected in U.S. dollar equivalent terms on the basis of the pool units to be “paid” on each due date and the pool unit value at the reference date, and then converted into the unit of account, if this is not the U.S. dollar,⁷ at the market exchange rate (the midpoint between the buying and the selling spot rates) prevailing on the reference date.

Receiving or Paying Foreign Currency Under a Financial Derivatives Contract

6.27 Consistent with the foreign-currency-conversion approach adopted throughout the *Guide*, the amounts of foreign currency contracted to be paid and received under a financial derivatives contract that is current and outstanding at the reference date should

⁶From a theoretical viewpoint, and given that the debt-service payment schedule is making projections, forward rates may be considered the best estimate of exchange rates for specific dates in the future. However, while such an approach might well be readily applied in many instances for shorter-term debt in major currencies, there may be a lack of readily observable forward rates for longer-term borrowing and for “smaller” currencies, thus leading to possible inconsistent approaches between economies and different maturity periods. Also, there always remains uncertainty about the future course of interest and currency rates. The *Guide* takes the view that projections of future payments of external debt linked to currency and interest rate movements should be based on end-period spot rates, rather than, say, forward rates, because this approach is more transparent, easier to compile, and more readily understandable to users than projections based on rates in forward markets—even though it is recognized that the use of a single day's exchange rate to convert payments to be made over a forward period could be misleading if temporary factors affect the exchange rate for that day.

⁷Currency pool loans are loans that are committed in U.S. dollar equivalent terms and converted into pool units, the base unit the borrower owes, through a conversion rate—pool unit value—that is calculated on the basis of the relationship between the U.S. dollar and the component currencies in the pool. When pool units are to be repaid, they are converted back into the dollar-equivalent amount using the prevailing pool unit value. Currency pool loans are described in more detail in Appendix I.

be converted to the unit of account using the market exchange rate (the midpoint between the buying and the selling spot rates) prevailing on the reference date (the last day before the start of the forward looking period).

Projected Interest Payments on Deposits

6.28 Interest on deposits that is payable once a year or more frequently is projected as a future interest payment. Interest payments on deposits should be projected on the basis of those deposits that are outstanding on the reference date, using interest rates current on the reference date, unless there are contractual reasons to assume otherwise.

6.29 Interest on deposits that are withdrawable on demand or subject to a notice of withdrawal, and not subject to a maturity date, should be projected into the future,⁸ whereas those interest payments on those deposits with a maturity date should be projected only to that maturity date. Payments on deposits for which notice of withdrawal has been given should be projected on the assumption that these deposits will be withdrawn on the due date, and no assumption of reinvestment should be made unless there are explicit instructions from the depositor that indicate otherwise.

Projected Payments of Index-Linked External Debt, Including Variable-Rate Interest

6.30 Interest and principal payments on external debt may be linked to a reference index that changes over time—for instance, a variable reference interest rate index, a commodity price, or another specified price index. For such payments, projected payments should be estimated using the level of the reference index on the last day before the start of the forward-looking period or, if the link is to a change in the reference index, the recorded change for the relevant period up to the last day before the start of the forward-looking period, or the closest relevant time period available. If the margin over the reference index is subject to change, then the margin on the last day before the start of the forward-looking period should be used. For debt payable in commodities or

other goods, future payments are valued using the market price of a commodity or good as at the reference date, with the split between principal and interest payments based on the implicit interest rate at the reference date (see also Chapter 2, paragraph 2.37).

Projected Payments on Loans Not Fully Disbursed

6.31 No payments should be projected for loans that are not yet disbursed. If loans have been partially disbursed, payments should be projected only for those funds that have been disbursed. If the payment schedule in the loan contract is based on the assumption that all funds are disbursed, but only partial disbursement has occurred by the reference date, then, in the absence of any other information that clearly specifies the payment schedule arising from funds that have been disbursed, it is recommended that the payment schedule in the loan contract should be prorated by the percentage of the loan that has been disbursed—for example, if half of the loan has been disbursed, then half of each payment in the loan schedule should be reported in the debt-service schedule.⁹

Projected Payments of Service-Related Debts

6.32 In the *Guide*, if a payment to a nonresident for a service that has been provided is outstanding at the reference date, it is classified as an external debt liability. Given this, any future payments for services—such as fees, charges, and commissions that have already been provided by the reference date—are classified as principal payments, within *other debt liabilities* (unless they are classified as debt liabilities to affiliated enterprises/direct investors). Any projection of fees that depend on moving reference amounts, such as undrawn commitments, should be based on the reference amount at the reference date. While not encouraged, it is recognized that national practice might be to classify service charges related to a loan along with interest in the debt-service schedule.

⁸In principle, the future could be indefinite, but compilers are encouraged to make some commonsense assumptions about the average maturity of deposits with no stated maturity.

⁹For prudent debt-management purposes, in some national practices, even if only partially disbursed, the full amounts foreseen in the payment schedule of the loan are projected for each period until the external debt outstanding at the reference date is fully repaid. Under this “truncated” approach, if half the amount is disbursed on the reference date, the loan is “repaid” in half the time that is expected in the loan schedule, thus “front-loading” the debt-service schedule.

Projected Payments of External Debt with the Provision for Early Repayment

6.33 An external debt liability may include a provision that allows the creditor to request early repayment. For instance, the creditor may have an option to redeem the debt early through a put (sell) option. In principle, projected payments can be estimated both without and with reference to this embedded put option. For instance, a ten-year bond with a put option after five years can be assumed at inception to have a repayment date of ten years, and payments recorded up until that date. Alternatively, for this bond the earliest possible date for repayment of five years could be assumed, with projected payments finishing at that time. The preference in the *Guide* is to project debt-service payments on the basis of the original maturity (ten years in the example), but to provide additional information on payments based on the earliest repayment date (five years in the example). But it is recognized that national practice may be to estimate projected payments on bonds with embedded put options only until the option date (five years in the example), with additional information on the projected payments on the bond up until the original maturity date (ten years in the example).¹⁰

Projected Payments of Credit-Linked External Debt

6.34 Payments of interest and/or principal may be linked to the credit rating of another borrower(s),

¹⁰The debtor might have an option to call (buy back) external debt early, which would also result in a drain on liquidity. But unlike the put option for the creditor, this drain is unlikely to be exercised except at a convenient time for the debtor. Consequently, in assessing vulnerability, information on external debt containing put options is more significant.

such as in a credit-linked note. In these instances the credit rating of the other borrower(s) on the last day before the start of the forward-looking period should be used to project payments.

Projected Payments Arising from Reverse Transactions

6.35 Under the recording approach for reverse transactions—the collateralized loan approach—a security provider records a loan liability. In the debt-service payment schedule, the security provider records the full amount of the loan to be paid at maturity under principal. If the reverse transaction has an “open” maturity,¹¹ the loan should be recorded as on-demand, under the immediate time category in the presentation of the debt-service payment schedule, unless there is clear evidence to suggest otherwise.

Projected Payments on Financial Leases

6.36 Projected payments on financial leases must be divided into interest and principal payments. The amount of interest payments can be calculated using the implicit rate of interest on the loan, with all other payments recorded as principal payments. Conceptually, at inception, the implicit rate of interest on the loan is that which equates the value of the good provided—the value of the loan—with the discounted value of future payments, including any residual value of the good to be returned (or purchased) at the maturity of the lease.

¹¹“Open” maturity is where both parties agree daily to renew or terminate the agreement. Such an arrangement avoids settlement costs if both parties wish to renew the reverse transaction on a continuing basis.

7. Further Presentation Tables of External Debt

Introduction

7.1 This chapter introduces presentation tables that facilitate a more detailed examination of the potential liquidity and solvency risks to the economy that might arise from the acquisition of external liabilities. These tables provide information that supplements that included in the gross external debt position presented earlier in the *Guide*. More specifically, this chapter provides presentation tables on:

- External debt by short-term remaining maturity (Tables 7.1 and 7.2);
- Debt-service payment schedule (Tables 7.3 and 7.4);
- Foreign and domestic currency external debt (Tables 7.5–7.7);
- Interest rates and external debt (Tables 7.8–7.9);
- External debt by creditor sector (Table 7.10);
- Net external debt position (Table 7.11);
- Reconciliation of external debt positions and flows (Table 7.12);
- Traded debt instruments (Tables 7.13 and 7.14); and
- Cross-border trade-related credit (Table 7.15).

7.2 For any individual economy, the relevance of any table in this chapter will depend upon the circumstances facing it, and so the *Guide* does not provide a list of priorities for compiling the tables ahead. Indeed, the tables are provided as flexible frameworks to be used by countries in the long-term development of their external debt statistics. But experience suggests that data on debt-maturity profiles and currency breakdowns are essential to a comprehensive analysis of external vulnerability for countries with substantial but uncertain access to international capital markets. For the IMF's data dissemination standards, the tables for the debt-service payment schedule—Table 7.3 (Special Data Dissemination Standard, SDDS) and Table 7.4 (General Data Dissemination System, GDDS)—are relevant,

as is the table on foreign currency and domestic currency debt, Table 7.5 (SDDS).¹

7.3 Because the concepts for its measurement remain consistent throughout the *Guide*, the gross external debt position for each institutional sector and for the total economy should be the same regardless of the presentation table employed, provided that the same approach to valuing traded debt instruments is adopted throughout. Also, because the concepts remain consistent, if necessary, compilers can combine different characteristics of external debt in presentations other than those set out below. In disseminating data, compilers are encouraged to provide methodological notes explaining the concepts and methods used in compiling the data.

7.4 Throughout this chapter, except where stated otherwise, the first level of disaggregation by row is by debtor sector, followed (where relevant) by maturity on an original maturity basis. In the tables, the institutional sector presentation is provided, but in principle the presentations can also be provided on a public sector basis, as set out in Chapter 5. Because of the particular importance of both measures, the debt-service payment schedule is presented on both institutional (Table 7.3) and a public sector basis (Table 7.4).

External Debt by Short-Term Remaining Maturity

7.5 Tables are provided for presenting gross external debt position data by short-term remaining maturity for the total economy (Table 7.1), and then by institutional sector (Table 7.2). Information on the total short-term debt of the total economy, both on

¹Box 4.1 in Chapter 4 provides the precise requirements for the external debt category of the IMF's data dissemination standards.

**Table 7.1. Gross External Debt Position:
Short-Term Remaining Maturity—Total Economy**

End-Period
Short-term debt on an original maturity basis
Money market instruments
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
Arrears
Other
<i>Total</i>
Long-term debt obligations due for payment within one year or less
Bonds and notes
Loans
Currency and deposits ¹
Trade credits
Other debt liabilities ²
<i>Total</i>
Total Economy

¹It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

²Other debt liabilities are other liabilities in the IIP statement.

an original and remaining maturity basis, as well as by sector, is of analytical interest (see Box 7.1). For compiling the data for these tables, *direct investment: intercompany lending* should be attributed to long-term maturity unless detailed information is available to provide data on a short-term remaining maturity basis.

7.6 Compiling such information helps in the assessment of liquidity risk by indicating that part of the gross external debt position that is expected to fall due in the coming year. Also, by separately indicating short-term debt on an original maturity basis from debt on a long-term basis falling due in the coming year, the presentation provides additional information content, such as the extent to which high short-term remaining maturity data is due (or not) to significant debt payments expected on long-term debt (original maturity basis).

7.7 The concept of short-term remaining maturity can also be applied to other tables in this chapter, such as those relating to foreign-currency external debt.

**Table 7.2. Gross External Debt Position:
Short-Term Remaining Maturity—By Sector**

End-Period
General Government
Short-term debt on an original maturity basis
Money market instruments
Loans
Trade credits
Other debt liabilities ¹
Arrears
Other
<i>Total</i>
Long-term debt obligations due for payment within one year or less
Bonds and notes
Loans
Trade credits
Other debt liabilities ¹
<i>Total</i>
Monetary Authorities
Short-term debt on an original maturity basis
Money market instruments
Loans
Currency and deposits ²
Other debt liabilities ¹
Arrears
Other
<i>Total</i>
Long-term debt obligations due for payment within one year or less
Bonds and notes
Loans
Currency and deposits ²
Other debt liabilities ¹
<i>Total</i>
Banks
Short-term debt on an original maturity basis
Money market instruments
Loans
Currency and deposits ²
Other debt liabilities ¹
Arrears
Other
<i>Total</i>
Long-term debt obligations due for payment within one year or less
Bonds and notes
Loans
Currency and deposits ²
Other debt liabilities ¹
<i>Total</i>

Debt-Service Payment Schedule

7.8 Like the short-term remaining maturity presentation table, as mentioned in the previous chapter, a debt-service payment schedule supports the assessment of liquidity risk.

Table 7.2 (concluded)

	End-Period
Other Sectors	
Short-term debt on an original maturity basis	
Money market instruments	
Loans	
Currency and deposits ²	
Trade credits	
Other debt liabilities ¹	
Arrears	
Other	
<i>Total</i>	
Long-term debt obligations due for payment within one year or less	
Bonds and notes	
Loans	
Currency and deposits ²	
Trade credits	
Other debt liabilities ¹	
<i>Total</i>	
Total	
Direct Investment: Intercompany Lending³	
Short-term debt on an original maturity basis	
Debt liabilities to affiliated enterprises	
Arrears	
Other	
Debt liabilities to direct investors	
Arrears	
Other	
Long-term debt obligations due for payment within one year or less	
Debt liabilities to affiliated enterprises	
Debt liabilities to direct investors	
Total Short-Term External Debt (remaining maturity basis)	
¹ Other debt liabilities are other liabilities in the IIP statement.	
² It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.	
³ If data on intercompany lending on a short-term remaining maturity basis are available.	

7.9 Table 7.3 gives a presentation of a debt-service payment schedule. The data to be presented in this table are projected future payments of interest and principal on gross external debt outstanding on the reference date.² The data should not cover projected

²Debt-service payments can also be projected on the basis not only of outstanding debt on the reference date but additionally on debt not yet, but expected to be, outstanding—for example, loans that have been agreed but not disbursed and short-term debt that might be assumed to be renewed. This *Guide* does not provide guidance for projecting payments on expected disbursements because its focus is on outstanding, and not projected, debt.

Box 7.1. High-Frequency Debt-Monitoring Systems

To enable authorities to monitor developments in short-term capital flows as a source of external vulnerability, a number of countries, with the help of IMF staff, have developed monitoring systems that generate timely high-frequency data on the liabilities of domestic banks to foreign banks. This box briefly sets out the rationale for such systems, their coverage, the institutional considerations, and the use of these data.

Rationale and Design Objective

High-frequency debt-monitoring systems are intended to monitor developments in short-term financial flows, which are a major source of external vulnerability and an important factor in crisis prevention and/or resolution. Such systems are designed to obtain high-quality data within very short time intervals (typically, a day).

Coverage

Given these objectives, high-frequency debt-monitoring systems are typically limited to cover consolidated interbank transactions of domestic banks, including their offshore branches and subsidiaries, vis-à-vis foreign banks. The core set of instruments that are typically covered include short-term interbank credits, trade credit lines, payments falling due on medium- and long-term loans, and receipts and payments related to financial derivatives. Reporting institutions usually provide data on amounts due and paid in the reporting period, new lines extended, interest spreads over LIBOR, and maturities. As regards country classification, individual banks are attributed to the country in which their headquarters is located.

Institutional Considerations

Monitoring systems have been tailored to the specific circumstances of individual countries. However, there are certain minimum requirements—in general, a capacity to collect, process, and communicate high-quality data with short lags. Key factors in the success of such systems include close coordination between the authorities and banks, which may be facilitated by preexisting reporting requirements, and the proportion of external financial flows being channeled through the domestic banking system (and, if relevant, other reporting institutions). Although a capacity must be developed to respond promptly to questions, and to identify and approach banks about emerging problems, the authorities need to be sensitive to concerns that private sector participants might misinterpret requests for information.

Use and Interpretation of Data

The information provided permits the tracking of rollover rates, changes in exposure and the terms of external obligations, which help to assess changes in international capital market conditions and creditors' assessments of the borrowing country. (It may also reveal differing assessments of different institutions within the country.) Interpretation of the data involves considerable judgment, requiring analysis of supply- and demand-side factors in order to shed more light on the agents' motivations behind the monitored transactions and thus the soundness of a country's external position. Supply-side considerations include factors such as shifts in creditor bank strategies, banking sector or country risk, and institutional/regulatory changes in the source country. Demand for interbank lines may be affected, for example, by fluctuations of imports or an increase/decrease in the reliance on local financing sources, such as foreign currency time deposits.

Table 7.3. Debt-Service Payment Schedule: By Sector

	For Outstanding External Debt as at End-Period						
	Immediate ¹	One year or less (months)			Over one year to two years (months)		Over two years
		0-3	4-6	7-9	10-12	13-18	
General Government							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Trade credits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Monetary Authorities							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Banks							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Other Sectors							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Trade credits							
Principal							
Interest							

Table 7.3 (continued)

	For Outstanding External Debt as at End-Period						
	Immediate ¹	One year or less (months)			Over one year to two years (months)		Over two years
		0-3	4-6	7-9	10-12	13-18	
Other Sectors (concluded)							
Other debt liabilities							
Principal							
Interest							
Nonbank financial corporations							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Nonfinancial corporations							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Trade credits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Households and nonprofit institutions serving households (NPISH)							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Trade credits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Direct Investment: Intercompany Lending							
Debt liabilities to affiliated enterprises							
Principal							
Interest							
Debt liabilities to direct investors							
Principal							
Interest							

Table 7.3 (concluded)

	For Outstanding External Debt as at End-Period						
	Immediate ¹	One year or less (months)			Over one year to two years (months)		Over two years
		0–3	4–6	7–9	10–12	13–18	
Gross External Debt Payments							
Of which: Principal							
Interest							
Memorandum item							
Securities with Embedded Options³							
General Government							
Principal							
Interest							
Monetary Authorities							
Principal							
Interest							
Banks							
Principal							
Interest							
Other Sectors							
Principal							
Interest							

¹Immediately available on demand or immediately due.

²Other debt liabilities are other liabilities in the IIP statement.

³Include only those securities that contain an embedded option with a date on which or after which the debt can be sold back to the debtor.

future payments on external debt not yet outstanding. *Direct investment: intercompany lending* is separately identified, although it is recognized that sometimes the payments schedule on debt liabilities between related enterprises might not always be known with precision.

7.10 In the table, the columns are time periods of one year and less, over one year to two years, and over two years. The time frame in the table could be extended. Annual payment data for each year from two years up to five years ahead would help to identify potential significant payment amounts well in advance. Some countries provide annual data for each year out to 10 or 15 years.

7.11 Subperiods are presented within the time periods of one year or less, and over one year to two years: in the one year or less period, quarterly subperiods are presented together with an “immediate” category (see below); in the over one year to two years time period, semiannual (semester) subperiods are presented. The column “0–3” months covers

payments of up to three months (excluding those payments falling under “immediate”); the column “4–6” months covers payments due in more than three months up to six months; the column “7–9” months covers payments due in more than six months up to nine months; the column “10–12” months covers payments due in more than nine months up to 12 months; the column “13–18” months covers payments due in more than 12 months up to 18 months; the column “19–24” months covers payments due in more than 18 months up to 24 months.

7.12 The time period of one year or less includes a subperiod of “immediate” that covers all debt that is payable on demand—for example, certain types of bank deposits, as well as debt that is past due (arrears, including interest on arrears). Debt that is technically due immediately is different in nature from debt due in one year or less because the actual timing of payment on debt due immediately is uncertain. Without an “immediate” time period specified, there is a possibility that an analytically misleading impression could be given by the data for

short-term debt—some of this debt might not be repaid for some time.

7.13 When securities contain an embedded option with a date on which or after which the debt can be put (sold) back to the debtor by the creditor, as explained in the previous chapter the preference of the *Guide* is that projected payments in Tables 7.3 and 7.4 be estimated without reference to these embedded put options, but that memorandum items on projected payments be provided assuming early repayment at the option date.

7.14 If national practice is to estimate projected payments on bonds with embedded put options only until the option date, additional memorandum information could be provided on the projected payments on the bond up until the original maturity date.

7.15 Other embedded options might not include a set date, but their exercise may be dependent on certain conditions occurring, such as a credit rating downgrade, or in the instance of a convertible bond, the price of equity reaching a certain level. While no memorandum item is provided for these instruments, where significant, additional data could be compiled on the value and type of this external debt. In particular, and if significant, credit-linked note instruments should be separately identified in a memorandum item. In some economies, there may be interest in historical debt-service data—that is, past payments of principal and interest on long-term borrowings including prepayments of debt.

7.16 For public debt managers, the monitoring of the debt-service payment schedule for public and publicly guaranteed debt is essential for debt management strategy and to ensure that payments are made on a timely basis. Table 7.4 provides a debt-service payment schedule that presents debt-service payments on a public sector basis but is otherwise identical to Table 7.3.

Foreign Currency and Domestic Currency External Debt

7.17 Experience suggests that information on the currency composition of the gross external debt position is necessary for monitoring an economy's potential vulnerability to solvency and liquidity risk. For instance, a depreciation of the exchange rate can

increase the burden of foreign currency debt liabilities in domestic currency terms for the resident debtor (although there may be beneficial effects such as an improvement in the competitiveness of an economy's exports of goods and services), while payments on foreign currency debt can cause downward pressure on the domestic exchange rate and/or outflows of foreign currency from the economy. Some of the impact can be offset through the use of financial derivatives, and natural hedges such as foreign currency assets and income, but, unlike the domestic currency, the domestic monetary authority cannot create additional foreign currency.

7.18 Three tables are provided to help users understand the risks to the economy of foreign currency external debt. Table 7.5 is a simple foreign currency/domestic currency split of the gross external debt position; Table 7.6 provides more information on the foreign currency external debt position; and Table 7.7 provides information on foreign currency payments.

Domestic Currency/Foreign Currency Split of the Gross External Debt Position

7.19 Table 7.5 provides information on the foreign currency and domestic currency split of the gross external debt position for the total economy. The definition of foreign currency debt in this table includes both foreign currency³ and foreign-currency-linked debt. Foreign-currency-linked debt is included with foreign currency debt because a depreciation of the exchange rate can increase the burden of foreign-currency-linked debt liabilities in domestic currency terms for the resident debtor.

7.20 A special case arises where an economy uses as its legal tender a currency issued by a monetary authority of another economy—such as U.S. dollars—or of a common currency area to which the economy does not belong. While this currency is to be classified as a foreign currency, it has some of the attributes of a domestic currency because domestic transactions are settled in this currency. With this in mind, information could be separately provided on external debt payable in and/or linked to a foreign currency used as legal tender in the domestic economy, and other foreign currency external debt.

³Including external debt payable in a foreign currency but with the amounts to be paid linked to a domestic currency.

Table 7.4. Debt-Service Payment Schedule: Public and Publicly Guaranteed Debt and Nonguaranteed Private Sector Debt

	For Outstanding External Debt as at End-Period						
	Immediate ¹	One year or less (months)			Over one year to two years (months)		Over two years
		0-3	4-6	7-9	10-12	13-18	
Public and Publicly Guaranteed Debt							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Trade credits							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Direct investment: Intercompany lending							
<i>Debt liabilities to affiliated enterprises</i>							
Principal							
Interest							
<i>Debt liabilities to direct investors</i>							
Principal							
Interest							
Nonguaranteed Private Sector Debt							
Debt securities							
Principal							
Interest							
Loans							
Principal							
Interest							
Currency and deposits							
Principal							
Interest							
Trade credit							
Principal							
Interest							
Other debt liabilities²							
Principal							
Interest							
Direct investment: Intercompany lending							
<i>Debt liabilities to affiliated enterprises</i>							
Principal							
Interest							
<i>Debt liabilities to direct investors</i>							
Principal							
Interest							
Gross External Debt Payments							
<i>Of which:</i> Principal							
Interest							
Memorandum item							
Securities with Embedded Options³							
Public and Publicly Guaranteed Debt							
Principal							
Interest							
Nonguaranteed Private Sector Debt							
Principal							
Interest							

¹Immediately available on demand or immediately due.

²Other debt liabilities are other liabilities in the IIP statement.

³Include only those securities that contain an embedded option with a date on which or after which the debt can be sold back to the debtor.

Table 7.5. Gross External Debt Position: Foreign Currency and Domestic Currency Debt

	End-Period
Foreign currency	
Short-term	
Long-term	
Total	
Domestic currency	
Short-term	
Long-term	
Total	
Gross External Debt	

7.21 While Table 7.5 is based on the original maturity concept, data could also be compiled on a remaining-maturity basis. Also, further disaggregation of the table into institutional sectors and instruments is possible. If significant, the foreign currency data could be disaggregated into external debt that is payable in foreign currency and external debt that is payable in domestic currency but with the amounts to be paid linked to a foreign currency (foreign-currency-linked debt).

Gross Foreign Currency External Debt

7.22 For those economies with significant gross foreign currency external debt, Table 7.6 presents more detailed information on the position. This table provides an attribution of foreign currency and foreign-currency-linked external debt by major foreign currency—U.S. dollars, euros, and Japanese yen. Further individual currencies could be added. Dissemination of this detailed information is encouraged because it provides further information on the exposure to exchange rate movements to that set out in Table 7.5.

7.23 The table could be extended to also include foreign currency and foreign-currency-linked debt owed by each resident sector to each other resident institutional sector. While such debt is beyond the definition of external debt, it can result in cross-institutional sector transfers of income when there are movements in the domestic exchange rate vis-à-vis foreign currencies, thus affecting eco-

nomics activity and financial stability. However, if such data are added to the data on nonresident claims, it should be remembered that if, for example, a resident bank funds a foreign currency loan to a resident corporation by borrowing from a nonresident, the foreign currency liabilities would appear in both the resident/resident and resident/nonresident data.

7.24 In the special case where an economy uses as its legal tender a foreign currency, borrowing in this currency from nonresidents could be separately identified in the table.

7.25 A memorandum item is provided in Table 7.6 for the notional value—the amount underlying a financial derivatives contract that is necessary for calculating payments or receipts on the contract—of foreign currency and foreign-currency-linked financial derivatives contracts with nonresidents both to receive and pay foreign currency, and by type of currency.⁴ A financial derivatives contract to purchase foreign currency with domestic currency is classified as a financial derivative to receive foreign currency. If instead the contract is to purchase domestic currency with foreign currency at a future date, this is a financial derivative to pay foreign currency. Similarly, an option to buy foreign currency (sell domestic currency) is classified as a financial derivative to receive foreign currency, and vice versa. The decisive factor in determining whether the financial derivative is to be classified as receiving or paying foreign currency is the exposure to currency movements, so if payment of a financial derivatives contract is linked to a foreign currency even though payment is required in domestic currency, the financial derivative is to be classified as a contract to pay foreign currency, and vice versa.

7.26 Through the use of financial derivatives, the economy could become more, or less, exposed to exchange rate risk than is evidenced in the gross foreign currency external debt data; in this context, the notional value data—by providing a broad indication of the potential transfer of price risk underlying the financial derivatives contract—are analytically useful.

⁴For those economies that use a foreign currency—such as the U.S. dollar—as legal tender, information on the notional value of foreign currency derivatives to receive and pay this foreign currency—such as U.S. dollars—could be presented.

Table 7.6. Gross External Foreign Currency and Foreign-Currency-Linked Debt Position

	End-Period				
	Total	U.S. dollar	Euro	Yen	Other
General Government					
Short-term					
Long-term					
Monetary Authorities					
Short-term ¹					
Long-term					
Banks					
Short-term ¹					
Long-term					
Other Sectors					
Short-term					
Long-term					
Nonbank financial corporations					
Short-term					
Long-term					
Nonfinancial corporations					
Short-term					
Long-term					
Households and nonprofit institutions serving households (NPISH)					
Short-term					
Long-term					
Direct Investment: Intercompany Lending					
Debt liabilities to affiliated enterprises					
Debt liabilities to direct investors					
Gross External Foreign Currency and Foreign-Currency-Linked Debt					
Memorandum item					
Financial Derivatives: Notional Value of Foreign Currency and Foreign-Currency-Linked Contracts with Nonresidents²					
To Receive Foreign Currency					
General Government					
Forwards					
Options					
Monetary Authorities					
Forwards					
Options					
Banks					
Forwards					
Options					
Other Sectors					
Forwards					
Options					
Nonbank financial corporations					
Forwards					
Options					
Nonfinancial corporations					
Forwards					
Options					
Households and NPISH					
Forwards					
Options					
<i>Total</i>					

Table 7.6 (concluded)

	End-Period				
	Total	U.S. dollar	Euro	Yen	Other
To Pay Foreign Currency					
General Government					
Forwards					
Options					
Monetary Authorities					
Forwards					
Options					
Banks					
Forwards					
Options					
Other Sectors					
Forwards					
Options					
Nonbank financial corporations					
Forwards					
Options					
Nonfinancial corporations					
Forwards					
Options					
Households and NPISH					
Forwards					
Options					
<i>Total</i>					

¹It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

²Excludes financial derivatives that are included in reserve assets data; that is, financial derivatives that pertain to the management of reserve assets, are integral to the valuation of such assets, are settled in foreign currency, and are under the effective control of the monetary authorities.

7.27 The notional amount is comparable with the values for debt instruments; for instance, if a foreign currency debt instrument is issued and the proceeds sold for domestic currency with an agreement to repurchase the foreign currency with domestic currency at a future date—known as a currency or forex swap—the notional amount of the financial derivative is equal to the amount swapped. So, these amounts provide an indication of the scale of activity by institutional sectors in foreign currency financial derivatives; the extent to which institutional sectors might be covering the foreign currency risk of their borrowing; and/or the extent to which institutional sectors may be exposed to foreign currency risk through financial derivatives contracts.

7.28 A breakdown of positions by institutional sector into forwards (including swaps) and options is provided because of their different characteristics. Notably, forwards are likely to involve the delivery or receipt of the notional amount of foreign currency underlying the contract, whereas the settlement of an

option is likely to involve only a net settlement of the market value.⁵

7.29 If a single financial derivatives contract both pays and receives foreign currency, the notional amount should be included under both pay and receive foreign currency. Not only does this ensure completeness of reporting, it also allows for the possibility of attributing financial derivatives contracts by type of currency. If a financial derivatives contract requires the payment or receipt of foreign currency in return for something other than a currency (for example, a commodity), the notional amount should be included under either the receipt or payment of the foreign currency, as appropriate. If these contracts are significant, they could be separately identified.

⁵According to data published semiannually by the Bank for International Settlements (BIS), market values of foreign currency options are typically around 3–5 percent of the notional amount.

Projected Payments in Foreign Currencies Vis-à-Vis Nonresidents

7.30 Table 7.7 sets out a foreign currency payment schedule, and a memorandum item of selected foreign currency and foreign-currency-linked external assets. It provides an idea of the future potential drains of foreign currency resources from the economy to nonresidents, along with the external foreign currency assets that may be available to meet such drains in the short-term. While there is always difficulty in ascertaining the extent to which it might be possible to use assets to meet outstanding debt obligations as they come due, the memorandum item provides a broad approximation of the concept of foreign currency liquidity by listing selected asset types that would most likely be available in the short term. Only obligations to and claims on nonresidents are to be included in this table.

7.31 The bank, nonbank financial, and nonfinancial corporate sectors are presented in the table, but not the general government and monetary authority sectors because a framework for the dissemination of similar, but not identical, data for the monetary authorities and the central government is provided by the Data Template on International Reserves and Foreign Currency Liquidity.⁶ However, the table could be extended to cover these sectors.

7.32 The rows in the table present types of foreign currency payments (and receipts); the time period columns are defined identically to those in the debt-service schedule (Table 7.3).⁷ Because the focus is on foreign currency drains, all payments in domestic currency, even if linked to a foreign currency, are excluded. Foreign currency external debt payments are those payments that are included in the debt service payment schedule and are required in foreign

⁶This is a template on international reserves and foreign currency liquidity that was introduced as a prescribed component of the SDDS in March 1999 by the IMF's Executive Board. The template provides a considerably greater degree of transparency on international reserves and foreign currency borrowing by the authorities than hitherto. Details are provided in the *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* (Kester, 2001).

⁷This table could be extended to also include foreign currency payments and receipts to each other resident institutional sector. However, as mentioned in paragraph 7.23, combining resident/nonresident and resident/resident foreign currency data could result in double counting (for example, payments on a foreign currency loan by a resident corporation that was funded by a domestic bank from abroad).

currency. The requirements to deliver and receive foreign currency from nonresidents under forward contracts include only contractual agreements to deliver and receive the nominal (notional) amounts of foreign currency underlying forward contracts, such as forward foreign exchange contracts, and cross-currency swaps, on contracts current and outstanding at the reference date.

7.33 This item is not intended to include projected net settlements of financial derivatives contracts involving foreign currency, because such amounts are not required under the contract and are not known until the time of settlement.⁸ Consequently, contracts such as options and nondeliverable forwards that require only net settlement are not covered by this table. However, such contracts contribute relatively little to the value of foreign currency delivered under financial derivatives because the settlement amounts are much smaller than the notional amount and because these types of contracts have a relatively small share of the market. Table 7.6 distinguishes between forwards and options and so can be used to indicate their relative shares of total foreign currency financial derivatives.

7.34 The memorandum item in Table 7.7 covers positions in (and not payments of) foreign currency and foreign-currency-linked debt instruments that represent claims on nonresidents—a subcategory of the debt assets presented in the net external debt table (see Table 7.11)—plus foreign currency and foreign-currency-linked equity securities. The instruments in the table are selected on the assumption that they represent assets that might be available to meet a sudden drain of foreign exchange; that is, as mentioned above, they provide an approximation of the concept of foreign currency liquid assets. All short-term instruments (defined on an original maturity basis) are included along with those long-term instruments (original maturity basis) that are traded or tradable (bonds and notes, and equity). Foreign-currency-

⁸As set out in Chapter 6, paragraph 6.27, future requirements to pay/receive foreign currency under forward derivatives contracts are to be converted into the unit of account at the market (spot) rate on the reference date; that is, consistent with the foreign-currency-conversion approach adopted throughout the *Guide*. Consequently, any gains or losses in the unit of account on these financial derivatives contracts are not reflected in this table, but would be reflected in the market value data to be reported in the financial derivatives memorandum table presented in Chapter 4 (Table 4.3) and in the net external debt position table set out later in this chapter (see Table 7.11).

Table 7.7. Projected Payment Schedule in Foreign Currency Vis-à-Vis Nonresidents: Selected Institutional Sectors

	For External Debt and Derivatives Contracts Outstanding as at End-Period							
	Immediate ¹	One year or less (months)				Over one year to two years (months)		Over two years
		0-3	4-6	7-9	10-12	13-18	19-24	
Banks								
Foreign currency external debt payments								
Requirements under forward financial derivatives contracts								
To deliver foreign currency								
To receive foreign currency								
Nonbank financial corporations								
Foreign currency external debt payments								
Requirements under forward financial derivatives contracts								
To deliver foreign currency								
To receive foreign currency								
Nonfinancial corporations								
Foreign currency external debt payments								
Requirements under forward financial derivatives contracts								
To deliver foreign currency								
To receive foreign currency								
Memorandum item								
Selected Foreign Currency and Foreign-Currency-Linked External Assets								
Banks								
Short-term								
Money market instruments								
Currency and deposits								
Loans								
Other debt liabilities ²								
Long-term								
Equities								
Bonds and notes								
Nonbank financial corporations								
Short-term								
Money market instruments								
Currency and deposits								
Loans								
Other debt liabilities ²								
Long-term								
Equities								
Bonds and notes								
Nonfinancial corporations								
Short-term								
Money market instruments								
Currency and deposits								
Loans								
Trade credits								
Other debt liabilities ²								
Long-term								
Equities								
Bonds and notes								

¹Immediately available on demand or immediately due.²Other debt liabilities are other liabilities in the IIP statement.

Table 7.8. Gross External Debt Position: Interest Rate Composition

	End-Period				Total
	Fixed-rate-linked		Variable-rate-linked		
	Amount	Percent of total	Amount	Percent of total	
General Government					
Short-term					
Long-term					
Monetary Authorities					
Short-term ¹					
Long-term					
Banks					
Short-term ¹					
Long-term					
Other Sectors					
Short-term					
Long-term					
Nonbank financial corporations					
Short-term					
Long-term					
Nonfinancial corporations					
Short-term					
Long-term					
Households and nonprofit institutions serving households (NPISH)					
Short-term					
Long-term					
Direct Investment: Intercompany Lending					
Debt liabilities to affiliated enterprises					
Debt liabilities to direct investors					
Gross External Debt					
(percentage of total external debt)					
Memorandum item (to include if significant)					
Notional Value of Financial Derivatives: Single-Currency Interest Rate-Related Contracts²					
To receive fixed-rate-linked payment					
General government					
Monetary authorities					
Banks					
Other sectors					
Nonbank financial corporations					
Nonfinancial corporations					
Households and NPISH					
From affiliated enterprises and direct investors					
Total					
To receive variable-rate-linked payment					
General government					
Monetary authorities					
Banks					
Other sectors					
Nonbank financial corporations					
Nonfinancial corporations					
Households and NPISH					
From affiliated enterprises and direct investors					
Total					
¹ It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.					
² Excludes financial derivatives that pertain to reserve asset management and are included in reserve assets data.					

linked assets are included to ensure consistency with the foreign currency and foreign-currency-linked external debt position data presented in Table 7.6. Indeed, foreign currency liabilities might be hedged by foreign-currency-linked assets, and vice versa. If foreign-currency-linked assets become significant, they could be separately identified.

Interest Rates and External Debt

Interest Rate Composition of External Debt

7.35 As with the currency composition, experience suggests that information on the interest rate composition of the gross external debt position can be necessary for monitoring an economy's potential vulnerability to solvency and liquidity risk. For instance, economies with high amounts of variable-rate debt are vulnerable to a sharp increase in interest rates. Hence, Table 7.8 provides a presentation of the amounts of the gross external debt position, both in relative and absolute terms, on which interest is fixed-rate and variable-rate. Along with the value, for each cell the percentage contribution to external debt is presented. In this table, the purchase of a separate financial derivatives contract, which might alter the effective nature of the interest cash payments, does not affect the classification of the underlying instrument (see also below).

7.36 A memorandum item is provided on the notional (or nominal) value of single-currency financial derivatives contracts with nonresidents for instances where the amounts involved are significant. These are broken down into contracts to receive fixed-rate-related cash payments and receive variable-rate-related cash payments. For instance, if all sectors reported that their external debt was all fixed-rate-linked but they had entered into derivatives contracts with nonresidents to swap all their interest payments into variable-rate-related payments, then the memorandum item would show that despite the apparent exposure of the economy to fixed-rate interest rates, it is actually exposed to variable rates.

7.37 In financial derivatives markets, interest rate contracts are typically referenced to a variable-rate index. To receive variable-rate-linked is to pay fixed-rate-linked, and vice versa. A financial derivative that receives variable-rate-linked is one that would have an increasing positive value, or a decreasing negative

Table 7.9. Gross External Debt Position: Average Interest Rates

	End-Period
General Government	
Monetary Authorities	
Banks	
Other Sectors	
Nonbank financial corporations	
Nonfinancial corporations	
Households and nonprofit institutions serving households (NPISH)	
Direct Investment: Intercompany Lending (from affiliated enterprises and direct investors)	
Total Economy	

value, as the variable rate specified in the contract increases; similarly a financial derivative that receives fixed-rate-linked has an increasing positive value, or a decreasing negative value, as the variable rate specified in the contract decreases.

Average Interest Rates

7.38 There is analytical interest in average interest rates on external debt. While financial derivatives contracts might arguably render these data less relevant than otherwise, these data provide information on the borrowing costs of the economy and can be used to help estimate debt-service interest rate payments, or be used to cross-check those data. Also, concessionality of borrowing can be imputed. Information on average interest rates on direct investment borrowing is of value because, often for tax reasons, average interest rates on this debt can vary widely. Information on average interest rates on short- and long-term original maturity instruments, by institutional sector, could additionally be provided.

7.39 In addition to weighted-average interest rates on outstanding external debt, Table 7.9 could be used to present data on the weighted-average level of interest rates agreed on new borrowing during the period.

External Debt by Creditor Sector

7.40 Table 7.10 provides for the presentation of creditor sector data for five nonresident creditor sec-

Table 7.10. Gross External Debt Position: Creditor Sector Information

Debtor Sectors	End-Period					Total
	Creditor Sectors					
	Multilateral Organizations ¹	General Government ^{1,2}	Monetary Authorities ¹	Banks	Other Sectors	
General Government						
Short-term						
Long-term						
Monetary Authorities						
Short-term ³						
Long-term						
Banks						
Short-term ³						
Long-term						
Other Sectors						
Short-term						
Long-term						
Nonbank financial corporations						
Short-term ³						
Long-term						
Nonfinancial corporations						
Short-term						
Long-term						
Households and nonprofit institutions serving households (NPISH)						
Short-term						
Long-term						
Gross External Debt Excluding Direct Investment						
Of which: Short-term						
Long-term						
Direct Investment: Intercompany Lending						
(Total column only)						
Debt liabilities to affiliated enterprises						
Debt liabilities to direct investors						
Gross External Debt						

¹For the multilateral organizations, general government, and monetary authorities creditor sectors, short-term lending, on an original maturity basis, may be insignificant—under which circumstances a short-/long-term split may not be necessary.

²Excluding multilateral organizations.

³It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

tors: multilateral organizations, general government (excluding multilateral organizations),⁹ monetary authorities,¹⁰ banks, and “other sectors.” Traditionally, this information has been most readily available for nontraded instruments and has been essential when undertaking debt-reorganization discussions. More broadly, information on creditor sectors has

⁹In *BPM5*, multilateral organizations form part of the foreign general government sector.

¹⁰This category excludes multilateral monetary institutions such as the IMF, which are included under multilateral organizations, but includes regional central banks.

been compiled because different types of creditors may respond to changing circumstances differently, and this can have implications for the economic situation of an economy.

7.41 Most economies may face practical difficulties in identifying owners of traded debt securities. Economies might attribute the value of all traded debt securities to “other sectors” as the creditor sector. If so, this assumption should be clearly identified in any presentation of data because it may be only very broadly reliable: for instance, monetary authorities hold significant quantities of cross-

border securities as part of their foreign exchange reserves. An alternative approach would be to have a separate column for traded debt securities and exclude holdings of such securities from all the “sector” columns.

7.42 Table 7.10 can be rearranged and extended as appropriate. One possibility is to divide the creditor sector information between official and other creditors. The official creditors could be further subdivided by *multilateral* and *official bilateral creditors*, and the latter could distinguish between Paris Club member creditors and non-Paris Club creditors. Also, official bilateral debt could be separated between concessional and nonconcessional debt.

7.43 Because direct investment liabilities do not fall naturally into this presentation, totals are drawn before and after *direct investment: intercompany lending*. Also, the “other sectors” as creditor sectors are not subdivided into nonbank financial, nonfinancial corporations, and households and NPISH, since this would create an additional degree of difficulty in obtaining this creditor information. On the other hand, as private sector capital flows increase, and these creditor sectors become more significant, there could be analytical interest in identifying their claims separately.

Net External Debt Position

7.44 As an economy increasingly integrates with the rest of the world, so analysis of the external liability position, and gross external debt position in particular, needs to take into account positions in external assets. Indeed, for risk-management purposes, entities may well manage external liabilities and assets in an integrated manner. On the other hand, there is difficulty in ascertaining the extent to which assets might be usable to meet outstanding debt liabilities. Table 7.11 provides a presentation of net external debt position data, placing gross external debt in the context of claims on nonresidents in the form of debt instruments.

7.45 The rows in the table are structured as in the gross external debt position table (Table 4.1), and the columns present gross external debt, gross external assets in debt instruments, and net debt position. A total of net external debt position plus the net financial derivatives position (this position is valued at

Table 7.11. Net External Debt Position: By Sector

	End-Period		
	Gross External Debt Position (1)	External Assets in Debt Instruments (2)	Net External Debt (3) = (1) – (2)
General Government			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Monetary Authorities			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Banks			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Other Sectors			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			

Table 7.11 (continued)

	End-Period		
	Gross External Debt Position	External Assets in Debt Instruments	Net External Debt
	(1)	(2)	(3) = (1) - (2)
Other Sectors (continued)			
Nonbank financial corporations			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Other debt instruments ²			
Nonfinancial corporations			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Households and nonprofit institutions serving households (NPISH)			
Short-term			
Money market instruments			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Arrears			
Other			
Long-term			
Bonds and notes			
Loans			
Currency and deposits ¹			
Trade credits			
Other debt instruments ²			
Direct Investment:			
Intercompany Lending			
Debt liabilities to affiliated enterprises			
Arrears			
Other			
Debt liabilities to direct investors			
Arrears			
Other			
Net External Debt (3)			

market value and should include the position in financial derivatives held as reserve assets) is drawn at the bottom of the table. Because of their different characteristics, information distinguishing forwards (including futures and swaps) and options within financial derivatives is encouraged.

7.46 The data on external assets in the form of debt instruments to be included in this table are the same as presented in the IIP, with short- and long-term defined on an original maturity basis. The net external debt position is equal to gross external debt less gross external assets in debt instruments.

7.47 Provided that traded debt instruments are valued at market value, net external debt in this table equals the net IIP position excluding all equity assets and liabilities, all financial derivatives assets and liabilities, and holdings of SDRs and monetary gold. This approach facilitates comparability with other statistics. An alternative approach, which is undertaken within the banking industry, is to present traded debt instrument liabilities at nominal value and traded debt instrument assets at market value.

Reconciliation of External Debt Positions and Flows

7.48 Between any two end-periods, the change in the gross external debt position can be disaggregated into component flows. These are financial transactions, valuation changes, and other adjustments. Such a disaggregation helps the compiler to reconcile and verify data, and it provides useful analytical information to the user of data (for example, the extent to which changes in the gross external debt position since the previous period are due to transactions, valuation changes, and/or revisions to the previous period data).

7.49 The reconciliation of gross external debt positions at two different reference dates is set out in Table 7.12. In this table, the first column is the gross external debt position at the beginning of the period, followed by the transactions during the period. Because the conceptual approach taken in the *Guide* is consistent with *BPM5*, the balance of payments transaction data can be used in the transactions column (although the subsector analysis of “other sectors” is not explicitly identified in *BPM5*). The next two columns are price

changes¹¹ and exchange rate changes. These changes assume greater importance with increased volatility of prices in security and exchange rate markets. A nominal-valuation presentation of traded debt instruments would exclude any changes in value arising from market prices. Before the position at the end of the period, a fifth item of “other adjustments” is included. These adjustments include reclassifications of external debt such as when entities switch from one institutional sector to another, and when the nature of a debt instrument changes—an example being of an instrument moving from a specific type (say, a loan) to *direct investment: intercompany lending*, when the relationship between the creditor and debtor becomes that of direct investment.

Traded Debt Instruments

Reconciliation of Nominal and Market Value

7.50 The *Guide* recommends that traded debt instruments be valued in the gross external debt position at nominal and market value. The sole difference between these two valuation measures is that market value takes account of market price changes, whereas nominal value does not. Market prices change over time for a number of reasons, including changes in market interest rates, changes in investor perception of the creditworthiness of the debtor, and changes in market structure (such as might affect market liquidity).

7.51 The divergence in the market and nominal value of traded debt instruments at one moment in time, and over time, is of analytical value. For this reason, Table 7.13 provides a framework for reconciling nominal and market valuation of traded debt instruments included in the gross external debt position. The instruments in the table include money market instruments, bonds and notes, and, if applicable, arrears. It is intended that data be presented in absolute amounts in the same unit of account used to present the gross external debt position.

Location of Debt Securities Issuance

7.52 Information on the location of issuance of debt securities issued by residents and owned by nonresi-

¹¹In addition to market price changes, this column covers other non-exchange-rate valuation changes—for example, changes in the value of pension fund liabilities to nonresident participants and policyholders arising from revaluations.

Table 7.11 (concluded)

Financial Derivatives	Position in Financial Derivatives at End of Period
Liabilities	
General government	
Forwards	
Options	
Monetary authorities	
Forwards	
Options	
Banks	
Forwards	
Options	
Other sectors	
Forwards	
Options	
Nonbank financial corporations	
Forwards	
Options	
Nonfinancial corporations	
Forwards	
Options	
Households and NPISH	
Forwards	
Options	
<i>Total (4)</i>	
Assets	
General government	
Forwards	
Options	
Monetary authorities	
Forwards	
Options	
Banks	
Forwards	
Options	
Other sectors	
Forwards	
Options	
Nonbank financial corporations	
Forwards	
Options	
Nonfinancial corporations	
Forwards	
Options	
Households and NPISH	
Forwards	
Options	
<i>Total (5)</i>	
Net External Debt Position plus Financial Derivatives (6)	
(6) = (3) + (4) – (5)	

¹It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

²Other debt instruments are other assets and other liabilities in the IIP statement.

Table 7.12. Gross External Debt Position: Reconciliation of Positions and Flows

	Position at Beginning of Period	Changes in Position Reflecting			Position at End of Period
		Transactions	Price changes	Exchange rate changes	
General Government					
Short-term					
Money market instruments					
Loans					
Trade credits					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Trade credits					
Other debt liabilities ¹					
Monetary Authorities					
Short-term					
Money market instruments					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Banks					
Short-term					
Money market instruments					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Other Sectors					
Short-term					
Money market instruments					
Loans					
Currency and deposits ²					
Trade credits					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Currency and deposits ²					
Trade credits					
Other debt liabilities ¹					

Table 7.12 (concluded)

	Position at Beginning of Period	Changes in Position Reflecting			Position at End of Period
		Transactions	Price changes	Exchange rate changes	
Other Sectors (continued)					
Nonbank financial corporations					
Short-term					
Money market instruments					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Currency and deposits ²					
Other debt liabilities ¹					
Nonfinancial corporations					
Short-term					
Money market instruments					
Loans					
Trade credits					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Trade credits					
Other debt liabilities ¹					
Households and nonprofit institutions serving households (NPISH)					
Short-term					
Money market instruments					
Loans					
Trade credits					
Other debt liabilities ¹					
Arrears					
Other					
Long-term					
Bonds and notes					
Loans					
Trade credits					
Other debt liabilities ¹					
Direct Investment: Intercompany Lending					
Debt liabilities to affiliated enterprises					
Arrears					
Other					
Debt liabilities to direct investors					
Arrears					
Other					
Gross External Debt					
¹ Other debt liabilities are other liabilities in the IIP statement.					
² It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.					

Table 7.13. Gross External Debt Position: Traded Debt Instruments—Reconciliation of Nominal and Market Value

	Nominal Value Position at End of Period	Market Price Change	Market Value Position at End of Period
General Government			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Monetary Authorities			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Banks			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Other Sectors			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Nonbank financial corporations			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Nonfinancial corporations			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Households and nonprofit institutions serving households (NPISH)			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			
Total			
Money market instruments			
Bonds and notes			
Arrears (if applicable)			

dents can also be of analytical value. For instance, such data provide an indication of the motivation of debtors and creditors—whether residents are attracting foreign investors by issuing securities in their markets; and of possible liquidity risk—securities issued in foreign markets may be harder to refinance in the event of an external shock to the economy. Also, in the absence of information on foreign currency debt, these data can provide a broad idea of the foreign currency/domestic currency attribution of debt securities—for instance, foreign-issued debt is likely to be foreign-currency-linked. From a compilation viewpoint, data on securities issued in foreign markets might well be captured in a different manner from that of issues in the domestic market.

7.53 A presentation for these data is provided in Table 7.14. The rows distinguish debt securities issued by general government from those issued by other sectors. The separate identification of government issues reflects the government's important and special role, in most economies, as a borrower. Depending on the extent of security issuance by the other institutional sectors, a further disaggregation of issues, such as for banks, might also be of analytical interest. The maturity attribution is on an original maturity basis, although the table can also be presented on a remaining maturity basis.

7.54 Consistent with the concepts set out in the *Guide*, Table 7.14 only covers information on

Table 7.14. Gross External Debt Position: Resident-Issued Debt Securities Owned by Nonresidents—Location of Issuance

	End-Period
Domestically issued	
Short-term	
General government	
All other sectors	
Long-term	
General government	
All other sectors	
Foreign issued	
Short-term	
General government	
All other sectors	
Long-term	
General government	
All other sectors	

nonresident ownership of resident-issued securities. But there might also be interest in presenting data on resident as well as nonresident ownership of resident-issued securities, both in domestic and foreign markets. By including additional columns for resident- and nonresident-owned

securities, the table can be extended to cover such information.

Cross-Border Trade-Related Credit

7.55 In addition to presenting data by type of instrument, another approach is to present data by the type of use of the borrowing. In this regard, of special interest is information on cross-border trade-related credits by debtor and creditor sector—that is, credits that finance trade. Such credit is directly linked to activity in the real economy. Table 7.15 provides a model for presenting data on borrowing used to finance trade, with the disaggregation by, first, maturity (original basis) and, second, institutional sector. In presenting these data, trade-bills could be separately identified, both because of the analytical interest in such data and to help with reconciliation with creditor-based statistics.

7.56 The debtor sectors are presented in rows, and the creditor sectors in columns. The rows and column for direct investment entities relate only to the provision of trade-related credit between related entities—that is, those transactions classified under direct investment in the balance of payments, and not the provision of trade-related credit by unrelated parties to direct investment entities. The maturity attribution is on an original maturity basis.

Table 7.15. Gross External Debt Position: Cross-Border Trade-Related Credit

Debtor Sectors	End-Period			
	Creditor Sectors			
	General government	Banks ¹	Other sectors	Direct investment entities
Short-term				
General government				
Monetary authorities				
Banks				
Other sectors				
Direct investment entities				
Long-term				
General government				
Monetary authorities				
Banks				
Other sectors				
Direct investment entities				
Total				

¹It is recommended that any cross-border trade-related debt of monetary authorities be included within the bank category, unless the monetary authorities are significant debtors, in which instance, they should be separately identified.

8. Debt Reorganization

Introduction

8.1 Debt-reorganization transactions are a feature of external debt activity. Economies sometimes face difficulties in meeting their external debt obligations, or debtors may want to change the repayment profile of their external obligations for different reasons, including reducing the risk of future payment difficulties or reducing the cost of borrowing. In this context, they may undertake debt restructuring and debt conversions. This chapter defines debt reorganization, discusses the various types of debt-reorganization operations, and provides guidance on how they affect the measurement of the gross external debt position. Further, this chapter defines debt relief and recommends the measurement and presentation of statistics on debt reduction, which is also defined.

8.2 Reference is made in the chapter to the recording of debt-reorganization transactions in the measured flow data of the balance of payments, the OECD's Development Assistance Committee (DAC) system, and the World Bank's Debtor Reporting System (DRS). Full details of such recording approaches are set out in *BPM5* (IMF, 1993), the OECD's *Handbook for Reporting Debt Reorganization on the DAC Questionnaire* (OECD, 1999), and the *Debtor Reporting System Manual* (World Bank, 2000).¹

Definitions

8.3 *Debt reorganization* is defined as bilateral arrangements involving both the creditor and the debtor that alter the terms established for the servicing of a debt. Types of debt reorganization include debt rescheduling, refinancing, forgiveness, conversion, and prepayments. A creditor can also reduce

debt through debt write-offs—a unilateral action that arises, for instance, when the creditor regards a claim as unrecoverable, perhaps because of bankruptcy of the debtor, and so no longer carries it on its books. This is not debt reorganization as defined in the *Guide* because it does not involve a bilateral arrangement. Similarly, a failure by a debtor economy to honor its debt obligations (default, moratorium, etc.) is not debt reorganization.

8.4 Generally, debt reorganization is undertaken to provide some *debt relief* to the debtor and can address liquidity and/or sustainability problems arising from future and current payment obligations. *Debt relief* results where there is (1) a reduction in the present value of these debt-service obligations; and/or (2) a deferral of the payments due, thus providing smaller near-term debt-service obligations (this can be measured, in most cases, by an increase in the duration of these obligations; that is, payments become weighted more toward the latter part of the debt instrument's life). However, if debt reorganization results in changes in present value and duration that are countervailing in their impact on the debt burden, then there is no debt relief, unless the net impact is significant, such as could occur if there was a deep reduction in present value (together with small decrease in duration) or a sharp increase in duration (together with a small increase in present value).

8.5 *Debt reduction* is defined as the reduction in the nominal value of external debt arising from a debt-reorganization arrangement, excluding any payments of economic value made by the debtor to the creditor as part of the arrangement. This is the definition to be used for compiling data to be presented in Table 8.1—debt reduction arising from debt reorganization. *Debt reduction in present value terms* is defined as the reduction in the present value of debt-service obligations arising from a debt reorganization, as calculated by discounting the projected future payments of interest and principal both before

¹See also Chapter 17.

Table 8.1. Nominal Value Debt Reduction Arising from Debt Reorganizations

Debtor	
Public sector	Of which: Multilateral Official bilateral Commercial bank ¹ Bonds and notes
Publicly guaranteed private debt	Of which: Multilateral Official bilateral Commercial bank ¹ Bonds and notes
Other private debt	Of which: Multilateral Official bilateral Commercial bank ¹ Bonds and notes
Of which:	
Rescheduled and refinanced	Public and publicly guaranteed debt Other private debt
Forgiven	Public and publicly guaranteed debt Other private debt
Debt conversions and prepayments	Public and publicly guaranteed debt Other private debt

¹Excluding bonds and notes.

and after the reorganization at a common interest rate and comparing the difference. To illustrate the difference between *debt reduction* and *debt reduction in present value terms*, if the contractual rate of interest is reduced with no impact on the nominal value of external debt, no *debt reduction* is recorded but there is *debt reduction in present-value terms*.

8.6 *Debt swaps* are exchanges of debt, such as loans or securities, for a new debt contract (debt-to-debt swaps), or exchanges of debt-for-equity, debt-for-exports, or debt-for-domestic currency, such as to be used for projects in the debtor country (also known as *debt conversion*).² This definition is intended to include debt-for-development swaps where economic value is provided by the debtor to the creditor for use in development projects in the debtor's economy.

²A debt swap should be distinguished from a financial derivative swap. The financial derivative swap involves two parties agreeing to swap future cash flows, while a debt swap involves the exchange of the debt instrument itself for economic value.

Types of Debt Reorganization

8.7 The three main types of debt reorganization are:

- A change in the terms and conditions of the amount owed, which may result, or not, in a reduction in burden in present-value terms. These transactions are usually described as *debt rescheduling*. They are also sometimes referred to as refinancing or as debt exchanges. Included are transactions that change the type of debt instrument owed—for example, loan for bond swaps—but not debt-forgiveness transactions.
- A reduction in the amount of, or the extinguishing of, a debt obligation by the creditor via a contractual arrangement with the debtor. This is *debt forgiveness* as described in *BPM5* and the DRS and is also classified as debt forgiveness in the DAC system if there is a development/welfare motive.
- The creditor exchanges the debt claim for something of economic value other than another debt claim on the same debtor. This includes *debt conversion*, such as debt-for-equity swaps, debt-for-real-estate swaps, and debt-for-nature swaps,³ and debt prepayment or buybacks for cash.

8.8 Debt-reorganization packages may involve more than one type; for example, most debt-reorganization packages involving debt forgiveness also result in a rescheduling of the part of the debt that is not forgiven or canceled.

8.9 For clarification purposes, in discussing the statistical treatment of debt reorganization, each of the three types of debt reorganization is considered separately. This has a number of advantages: each type of debt reorganization raises different statistical issues, hence encouraging a type-by-type approach; present international statistical guidelines, on which the guidelines in this chapter are based, are more advanced for some types of debt reorganization than for others; and there is interest in the different types of debt reorganization, and so there is an analytical benefit, where possible, in separately measuring and reporting any debt reduction resulting from their application.

³Some agreements described as debt swaps are equivalent to debt forgiveness from the creditor together with a commitment from the debtor country to undertake a number of development, environmental, etc., expenses. These transactions should be considered under the second type of debt reorganization, as counterpart funds are not provided to the creditor.

Debt Rescheduling

8.10 Rescheduling refers to the formal deferment of debt-service payments and the application of new and extended maturities to the deferred amount. This may be conducted: (1) through the exchange of an existing debt instrument for a new one, as in refinancing or debt exchanges; or (2) through a change of the terms and conditions of the existing contracts (this is often simply referred to as rescheduling, as opposed to refinancing). Rescheduling may or may not result in a reduction in the present value of debt, as calculated by discounting the old and new payment schedule by a common interest rate.

8.11 Refinancing of a debt liability involves the replacement of an existing debt instrument or instruments, including arrears, with a new debt instrument or instruments. For instance, the public sector may convert various export credit debt it is owed into a single loan. Refinancing may involve the exchange of one type of debt instrument, such as a loan, for another, such as a bond. Some debt-refinancing arrangements feature new money facilities (see below, paragraph 8.51). Also, refinancing can be said to have taken place when countries with private sector bond creditors exchange existing bonds for new bonds through exchange offers (rather than a change in terms and conditions).

8.12 Rescheduling can be characterized as flow or stock rescheduling. A flow rescheduling typically refers to a rescheduling of specified debt service falling due during a certain period and, in some cases, of specified arrears outstanding at the beginning of that period. A stock rescheduling involves principal payments that are not yet due, and arrears, if any, and like a flow rescheduling, can include both an element of debt forgiveness and a rescheduling of the amounts not reduced.

Recommended treatment

External debt position

8.13 Any agreed change in the terms of a debt instrument is to be recorded as the creation of a new debt instrument, with the original debt extinguished at the time both parties record the change in terms in their books. Whether the gross external debt position increases, decreases, or remains unchanged depends on whether the value of the new instrument(s) is respectively greater than, smaller than, or the same

as the original debts being replaced—this is the case regardless of the valuation method employed to measure external debt instruments.⁴ In other words, both before and after a debt rescheduling, the value of the gross external debt position is simply determined by the value of outstanding external debt liabilities of residents owed to nonresidents at the reference date.

8.14 As explained in Chapter 2, and as the examples in that chapter illustrated, the stock of external debt at any moment in time can be calculated by discounting future payments at a specified rate of interest. This interest rate can be the contractual rate (for nominal value), or a market rate for the specific borrower (for market value), or another rate. Using these different rates to discount payments will provide different position data for the same payment schedule. Debt reduction in present-value terms arising from rescheduling might be calculated using any of these rates—in the HIPC Initiative, a market-based rate is used.

8.15 If, as part of official and private debt-reduction packages, loans denominated in foreign currency are swapped for debt securities denominated in the domestic currency, the difference between the value of the loan and the value of the debt security in the domestic currency will be reflected in the gross external debt position. The extinguishment of the old debt liability, the loan, results in a decrease in the value of *short-term* or *long-term loans*, as appropriate, while an increase in *bonds and notes* is recorded.

Flow data

8.16 In the flow data in the balance of payments, both the extinguishment of the old debt liability and the creation of the new debt(s) are recorded. In the DAC system these flows are also recorded, except when the category of debt does not change, in which case only the capitalization of interest is recorded as a flow. The DRS does not record these transactions in flow data (but they are reflected in

⁴If external debt is lower or higher because at the time of rescheduling it was agreed between the debtor and creditor that the amount of late interest on arrears was to be more or less than that which accrued, back data of the gross external debt position should not be revised to reflect this agreement, provided that the accrual of interest costs on arrears in past periods was in line with the contract(s) that existed at that time.

Box 8.1. Sovereign Bond Restructuring

The restructuring of a country's sovereign bonded external debt (eurobonds and Brady bonds) began with Pakistan at the end of 1999, following the extension of the "comparability of treatment" principle to bondholders in Pakistan's agreement with the Paris Club in January 1999.

In terms of restructuring debt, bonds have a number of characteristics that distinguish them from other types of debt instruments.

- First, there is usually a wider range of investors than for nontraded external debt instruments, and hence various investor groups all with potentially different investment motivations. For instance, the investment motivations of retail—nonfinancial institution—investors may be different from those of financial institutions.
- Second, market prices are invariably quoted. Thus, those investors that mark-to-market frequently—having borne the market-value loss in the secondary market price of the to-be-exchanged bonds, or having purchased at a low market value—might well compare the present value of the exchange offered (discounting payments at a particular interest rate) with the current market price of the to-be-exchanged bonds. In the simplest case, if the present value of the exchange bond is higher than the market price of the original bond, the holder of the to-be-exchanged bond has an incentive to tender his bonds in the exchange.
- Finally, most eurobonds and Brady bonds have cross-default clauses or cross-acceleration clauses in their covenants, thus perhaps making it impossible for a sovereign debtor to pick and choose which bondholders are repaid and which are not. So, markets debate the issue of whether a restructuring of external bonded debt needs to be comprehensive across other foreign currency debt instruments as well.

The consequence of the above is that successful bond restructuring—mostly bond exchanges—has involved the debtors exchanging securities at a premium to the market price, although well below the face value, or providing other "sweeteners" to encourage bondholders to participate. Bonds with the larger percentage of retail investors have tended to pay a higher premium. But, as with creditors for other types of debt instruments, a key consideration of creditors in any restructuring is whether the sovereign borrower is facing a liquidity or solvency problem, or neither.

the position data). In the balance of payments, any difference between the value of the old and new debts is treated as a valuation change, such as in the case of exchanges of Brady bonds (see Box 8.1) for new global bonds, except when nonmarketable debt owed to official creditors is involved, in which instance any reduction in the nominal value of debt is recorded as debt forgiveness (see below).⁵

⁵See *BPM5*, paragraph 534.

Debt reduction

8.17 The *Guide* recommends that debt reduction arising from debt rescheduling and debt refinancing—that is, a reduction in the nominal amount outstanding, excluding any external debt-service payments made by the debtor as part of the arrangement—be measured and presented as in the debt-reduction table provided in this chapter. If the new external debt liability is denominated in a different currency from that of the external debt liability it is replacing, then any debt reduction should be determined using the market exchange rate between the two currencies prevailing on the transaction date (that is, the midpoint between the buying and selling spot rates).

8.18 In many instances of debt rescheduling, the method by which debt relief is provided is more complex than a simple reduction in nominal amount outstanding. For instance, a debt might be rescheduled with the same nominal value but with a lower interest rate or with extended maturities. By simply comparing the nominal amounts outstanding before and after the rescheduling, no debt reduction would be evident, but there may be debt reduction in present value terms, calculated by discounting future debt-service payments, both on the old and new debts, at a common rate. In such circumstances, a key issue is which rate to use: in debt-reorganization operations such as those under the HIPC Initiative and similar arrangements, debt reduction in present-value terms is calculated using an interest rate equal to a market-based so-called risk-neutral rate—such as the OECD's Commercial Interest Reference Rates (CIRRs).⁶ In other cases, debt reduction in present value may be based on a rate that includes a risk premium, reflecting the creditor's assessment of the value of the claim (this is generally the case for the restructuring of claims held by private creditors).

8.19 Also, in some debt rescheduling, such as with concessional Paris Club agreements (Box 8.2), credi-

⁶These rates are determined monthly for 13 currencies on the basis of secondary market yields on government bonds with a residual maturity of five years, and additionally three and seven years for the Canadian dollar, the U.S. dollar, and the euro. These data are published monthly on the Internet at: <http://www.oecd.org/statistics/news-releases>. For the HIPC Initiative, debt denominated in currencies for which no CIRR is available, if the currency is pegged to another currency such as the U.S. dollar, the CIRR for the latter should be used; in the absence of an exchange rate arrangement, as well as for the units of account used by various multilateral institutions, the SDR CIRR should be applied.

Box 8.2. Paris Club and Commercial Bank Debt Relief

The Paris Club has developed procedures for the collective rescheduling of official bilateral debt since the 1950s, when Argentina approached bilateral creditors. The Club is an ad hoc organization of creditor countries (mainly OECD members) that responds to requests for debt relief with respect to guaranteed export credits and intergovernmental loans.

Debts to Paris Club official creditors are now restructured through the Paris Club, especially since Russia became a member of the Club in 1997. Debts to commercial banks are typically restructured through consortia of commercial banks. Noninsured supplier credits and debts to governments that do not participate in the Paris Club are normally restructured through bilateral negotiations.

Paris Club

The Paris Club is an informal group of creditor countries. The French Treasury maintains a permanent secretariat, and a senior official serves as Chairman, to administer the Paris Club on behalf of other creditor countries. There are 19 permanent members; nonmember creditor countries may be invited to take part in meetings for the treatment of the debt of a specific debtor country if they have significant claims on that country. The Club meets virtually every month in Paris, both for discussion of debt issues among the permanent members and for the rescheduling of the debt of a specific debtor country.

Countries facing difficulties in servicing of debt to official bilateral creditors will approach the Chairman of the Paris Club and ask to be considered for relief. The creditors at their monthly meeting will agree to hear that country's application, provided that an IMF-supported adjustment program is in place and that there is a financing need that requires rescheduling. Agreement is normally reached in face-to-face negotiations, or by mail if there are very few creditors. The Paris Club can "treat" debt owed (contracted or guaranteed) by the government and/or the public sector of the debtor country to creditor countries or their appropriate institutions: officially guaranteed export credits and bilateral loans. The representatives of the creditor countries at the Paris Club decide on the period over which debt relief will be given (known as the consolidation period), the debts that will be included (current maturities, possibly arrears, possibly previously rescheduled debt), and the repayment terms on consolidated debt (grace and repayment periods).

Two types of "treatment" may be implemented by the Paris Club:

- A flow treatment of usually both scheduled amortization and interest payments falling due in a given period; and
- A stock treatment of the entire outstanding principal at a given date, for countries with a good track record with the Paris Club if this would ensure an end to the rescheduling process.

Paris Club negotiations result in a multilateral framework agreement (Agreed Minute), which must be followed up with bilateral implementing agreements with each creditor agency. The interest rate on rescheduled debt (known as moratorium interest) is not arranged at the Paris Club but is negotiated bilaterally, reflecting market rates.

At the beginning of the debt-relief process, Paris Club creditor countries will establish a "cutoff date." This means that all loan contracts signed after that date will not be eligible for debt relief by the Paris Club. The aim is to help the debtor country reestablish its creditworthiness by paying new obligations on their original schedules. Even though debt relief may extend over many years through a succession of Paris Club agreements, the cutoff date will remain unchanged.

It was increasingly recognized in the 1980s that some low-income countries with high external debt were facing solvency as well as liquidity problems. Over the years, the Paris Club has provided increasingly concessional

rescheduling terms to low-income countries. The level of debt reduction on commercial claims was gradually increased from Toronto terms (1988—33.33 percent debt reduction) to London terms (1991—50 percent debt reduction) to Naples terms (1995—50 percent to 67 percent debt reduction) to Lyon terms (1996—80 percent debt reduction) and to Cologne terms (1999—90 percent reduction or more if needed under the HIPC Initiative). The evolution of Paris Club terms up to Lyon terms is presented in Table 8.2.

In 1996, the debt initiative for heavily indebted poor countries (HIPC) was established, leading for the first time to multilateral creditors providing debt relief to a country. The Paris Club provides its debt-relief effort in the context of the HIPC Initiative through the use initially of Lyon terms, and now of Cologne terms.

A country benefiting from Paris Club debt relief commits to seek at least similar restructuring terms from its other external creditors (other than multilateral creditors, which only provide debt relief to countries eligible for assistance under the HIPC Initiative). This applies to non-Paris Club bilateral creditors, who generally negotiate with the debtor country on a bilateral basis, as well as private creditors (suppliers, banks, bondholders, etc.).

Paris Club agreements may include a debt-swap provision, within a limit usually set at 20 percent of commercial claims. Paris Club creditors on a bilateral basis conduct debt-swap operations.

Commercial Bank Debt Relief

Multilateral debt relief is much more difficult to organize for commercial banks than for official creditors. While a national export credit insurer can negotiate on behalf of any individual creditor, there is no way to consolidate national commercial bank claims. Rather, each creditor bank must approve the resulting agreement and, for loan syndication, the number is often in the hundreds.

The pattern of negotiations was established in a 1970 agreement between the Philippines and its commercial bank creditors. Creditor banks form a committee (sometimes known as the London Club) of about a dozen people who represent the major creditor banks. The composition of the committee—which can be completely different from case to case—takes into account the nationality of the banks in the consortium so that the negotiations can make provision for the different tax and regulatory systems that affect banks of different countries. The committee negotiates an "agreement in principle" with debtor country representatives. After all creditor banks approve this agreement, it is signed. It takes effect when certain requirements are met, such as payment of fees and of arrears. As with the rescheduling of debts to official creditors, banks provide debt relief normally in the context of a debtor country's adjustment program supported by an IMF arrangement. Unlike with Paris Club creditors, there is no "cutoff" date.

Commercial bank agreements restructure principal; consolidation of original interest costs is rare. Like Paris Club agreements, consolidation of short-term debt is also unusual (but when a major portion of arrears has arisen from short-term debt, there is often no option but to restructure). Among the initiatives for reducing the commercial debt burden was the Brady Plan (1989). This market-based debt-restructuring initiative provided a menu of options to the creditor banks. These included buybacks—the debtor government repurchases debt at a discount that is agreed upon with the creditor banks; an exchange of debt into bonds at a discount but offering a market rate of interest (discount bonds); and an exchange at par into bonds that yielded a below-market interest rate (interest-reduction bonds). The discount bonds and the interest-reduction bonds were fully collateralized by zero-coupon U.S. government securities for principal and partially collateralized for interest payments.

tors are offered a choice between different options, one of them being a partial debt reduction, the other one being a rescheduling at a reduced interest rate (debt reduction in present value terms). Some creditors may forgive part of the claims and reschedule the outstanding part at the appropriate market rate (“debt-reduction” option), whereas other creditors reschedule the whole claim at a lower interest rate (“debt-service-reduction” option), resulting in a debt reduction in present value equivalent to the one granted by creditors that chose the “debt-reduction” option. Table 8.2 shows the variety and evolution of Paris Club debt-rescheduling terms.

8.20 Because of the complexities involved, and the different interest rates that may be employed, international statistical standards have not developed to the point where there is general agreement on how to measure and make comparable the different methods of providing debt reduction in present-value terms.

8.21 Given the above, the *Guide* provides no recommended guidance on measuring and presenting debt reduction in present-value terms. Nonetheless, economies that undergo debt rescheduling and refinancing are encouraged to disseminate (1) the total nominal amounts involved; (2) the amount of debt reduction in present-value terms they have achieved—the difference between the present values (using a common interest rate) of the rescheduled/refinanced debt-service payments before and after rescheduling/refinancing (present-value method);⁷ and (3) provide detailed information on how the amount of the present-value reduction was calculated, including the interest rate(s) used.

8.22 Similarly, no guidance is provided for measuring debt relief in terms of an increase in duration because of the difficulty in measuring such relief and presenting it in a manner that is comparable with other forms of debt reorganization.

Debt Forgiveness

8.23 Debt forgiveness is defined as the voluntary cancellation of all or part of a debt obligation within a contractual arrangement between a creditor in one

economy and a debtor in another economy.⁸ More specifically, the contractual arrangement cancels or forgives all or part of the principal amount outstanding, including interest arrears (interest that fell due in the past) and any other interest costs that have accrued. Debt forgiveness does not arise from the cancellation of future interest payments that have not yet fallen due and have not yet accrued.

8.24 If the debt reorganization effectively changes the contractual rate of interest—such as by reducing future interest payments but maintaining future principal payments, or vice versa—it is classified as debt rescheduling. However, in the specific instance of zero-coupon securities, a reduction in the principal amount to be paid at redemption to an amount that still exceeds the principal amount outstanding at the time the arrangement becomes effective could be classified as either an effective change in the contractual rate of interest, or as a reduction in principal with the contractual rate unchanged. Unless the bilateral agreement explicitly acknowledges a change in the contractual rate of interest, such a reduction in the principal payment to be made at maturity should be recorded as debt forgiveness.

Recommended treatment

External debt position and debt reduction

8.25 Debt forgiveness reduces the gross external debt position by the value of the outstanding principal that has been forgiven. Any reduction in principal is recorded under the appropriate debt instrument when it is received—that is, when both the debtor and creditor record the forgiveness in their books. Where possible, debt forgiveness in nominal terms should be separately identified and recorded under *debt reduction* in Table 8.1.

8.26 If forgiveness relates to payments on debt obligations that are past due and are yet to be paid—that is, arrears of interest and principal—a reduction in the gross external debt position under *arrears* is recorded. Forgiveness of interest costs that have

⁷The payment schedule for both the original and rescheduled debt could also be provided as memorandum information.

⁸This includes forgiveness of some or all of the principal amount of a credit-linked note due to an event affecting the entity on which the embedded credit derivative was written, and forgiveness of principal that arises when a type of event contractually specified in the debt contract occurs—for example, forgiveness in the event of a type of catastrophe.

Table 8.2. Evolution of Paris Club Rescheduling Terms

Implemented	Low-income Countries ²																		
	Lower-Middle-Income Countries (Houston terms) ¹				Toronto Terms Options				London Terms ³ Options				Naples Terms ⁴ Options						
	Middle-Income Countries		Lower-Middle-Income Countries (Houston terms) ¹		Toronto Terms Options		London Terms ³ Options		Naples Terms ⁴ Options		London Terms ³ Options		Naples Terms ⁴ Options		Lyon Terms ⁵ Options				
	Since September 1990	Since September 1990	DR	DSR	LM	LM	DR	DSR	CMI	LM	LM	DR	DSR	CMI	LM	DR	DSR	CMI	LM
Grace (in years)	5-6 ¹	Up to 8 ¹	8	8	14	6	—	5	16 ⁶	6	—	3	8	20	6	8	8	20	
Maturity (in years)	9 ¹	15 ¹	14	14	25	23	23	23	25	23	33	33	33	40	23	40	40	40	
Repayment schedule	Flat/Graduated	Flat/Graduated	Flat	Flat	—	—	Graduated	—	—	—	Graduated	—	—	—	—	Graduated	—	—	
Interest rate ⁷	M	M	M	R ⁸	M	M	R ⁹	R ⁹	M	M	R ¹⁰	R ¹⁰	R ¹⁰	M	M	R ¹¹	R ¹¹	M	
Reduction in present value (in percent)	—	—	33	20-30 ¹²	—	50	50	50	—	67	67	67	67	—	80	80	80	80	—
<i>Memorandum items</i>																			
ODA credits																			
Grace (in years)	5-6	Up to 10	14	14	14	12	12	12	16	16	16	16	16	20	16	16	16	20	20
Maturity (in years)	10	20	25	25	25	30	30	30	25	40	40	40	40	40	40	40	40	40	40

Source: Paris Club.

¹Since the 1992 agreements with Argentina and Brazil, creditors have made increasing use of graduated payments schedules (up to 15 years' maturity and 2-3 years' grace for middle-income countries; up to 18 years' maturity for lower-middle-income countries).

²DR refers to the debt-reduction option; DSR to the debt-service-reduction option; CMI denotes the capitalization of moratorium interest; LM denotes the nonconcessional option providing longer maturities. Under London, Naples, and Lyon terms, there is a provision for a stock-of-debt operation, but no such operation took place under London terms.

³These have also been called "Enhanced Toronto" and "Enhanced Concessions" terms.

⁴Most countries are expected to secure a 67 percent level of concessionality, countries with a per capita income of more than \$500, and an overall indebtedness ratio on present-value loans of less than 350 percent of exports may receive a 50 percent level of concessionality decided on a case-by-case basis. For a 50 percent level of concessionality, terms are equal to London terms, except for the DSR option under a stock-of-debt operation that includes a three-year grace period.

⁵These terms are to be granted in the context of concerted action by all creditors under the HIPC Initiative. They also include, on a voluntary basis, an official development assistance (ODA) debt-reduction option.

⁶Fourteen years before June 1992.

⁷Interest rates are based on market rates (M) and are determined in the bilateral agreements implementing the Paris Club Agreed Minute. R = reduced rates.

⁸The interest rate was 3.5 percentage points below the market rate or half of the market rate if the market rate was below 7 percent.

⁹Reduced to achieve a 50 percent present-value reduction.

¹⁰Reduced to achieve a 67 percent present-value reduction; under the DSR option for the stock operation, the interest rate is slightly higher, reflecting the three-year grace period.

¹¹Reduced to achieve an 80 percent present-value reduction.

¹²The reduction of present value depends on the reduction in interest rates and therefore varies. See footnote 8.

accrued during the period or amounts disbursed in the current recording period has no impact on the gross external debt position at the end of the period because any increase in the outstanding value of the debt instrument is matched by the debt forgiveness. However, any such forgiveness should be reported under *debt reduction* in Table 8.1.

8.27 A special case of debt forgiveness is where the creditor provides a grant to the debtor that is used to pay the debt-service payments as they fall due. In such instances, the gross external debt position is only affected when debt-service payments are made—that is, the same as for all debt instruments being serviced. Nonetheless, such assistance is recorded in the table as *debt reduction* when the debt-service payments are made.

Flow data

8.28 In flow terms, debt forgiveness is recorded in the balance of payments as a capital transfer, and in the DAC and DRS systems as a debt-forgiveness grant. The counterpart transaction in the balance of payments and DAC is a repayment of the principal owed. When debt forgiveness is in the form of a grant by the creditor to the debtor (as in the previous paragraph), repayment of the principal owed is generally similarly recorded in the DRS.

Debt Conversion and Debt Prepayments

8.29 External debt conversion is an exchange of debt—typically at a discount—for a non-external debt claim, such as equity, or for counterpart funds, such as can be used to finance a particular project or policy. Debt-for-equity, debt-for-nature, and debt-for-development swaps are all examples of debt conversion. A debt buyback is the repurchase, usually at a discount, by a debtor economy (or on its behalf) of all or part of its external debt. It may be undertaken on the secondary market or through negotiations with creditors.

Debt conversion

8.30 Rather than exchanging debt for debt, countries might enter into a debt conversion process—the legal and financial transformation of an economy’s liability. Typically, debt conversions involve an exchange of external debt in foreign currency for a nondebt obligation in domestic currency, at a discount. In essence, external debt is prepaid, and the

nature of the claim on the economy is changed. An example is a foreign currency debt-for-equity swap, which results in debt claims on the debtor economy being reduced, and nonresident investments in equity investments increased. Debt-for-equity swaps often involve a third party, usually a nongovernmental organization or a corporation, which buys the claims from the creditor and receives shares in a corporation or local currency (to be used for equity investment) from the debtor. Other types of debt swaps such as external debt obligations for exports (debt for exports), or external debt obligations for counterpart assets that are provided by the debtor to the creditor for a specified purpose such as wildlife protection, health, education, and environmental conservation (debt for sustainable development), are also debt conversions.

Prepayments and buybacks

8.31 Prepayments consist of a repurchase, or early payment, of debt at conditions that are agreed between the debtor and the creditor; that is, debt is extinguished in return for a cash payment agreed between the debtor and the creditor. When a discount is involved relative to the nominal value of the debt, prepayments are referred to as buybacks. Also, debtors may enter the secondary market and repurchase their own debt because market conditions are such that it is advantageous financially to do so.

Recommended treatment

External debt position

8.32 For both debt conversions and debt prepayments, a reduction in the gross external debt position is recorded to the value of the debt instruments that are extinguished, irrespective of the value of the counterpart claim (or assets) being provided. This reduction in gross external debt position should be recorded at the time when the debt instrument is extinguished; more accurately, the gross external debt position no longer includes debt that has ceased to exist.

Flow data

8.33 In the transaction data in the balance of payments, the reduction in the outstanding debt instrument is recorded at the value of the counterpart claim (or assets). Any difference in value is recorded as a valuation change in position data. An exception

arises when nonmarketable debt owed to official creditors is involved, and the counterpart claim (assets) has a lower value than the debt, in which instance both the debt instrument and the counterpart claim (or assets) are separately valued, and any difference in value is recorded as debt forgiveness in the balance of payments. The DAC system employs a similar approach, except that all differences in value are classified as transactions and not as valuation changes provided that they are the result of bilateral negotiation and there is a development motive for the operation. The DRS records both the reduction in the nominal value of the debt instrument and the value at which the debt was repurchased, allowing the discount to be measured.

Debt reduction

8.34 Where official debt is exchanged for equity or counterpart funds to be used for development purposes, the difference between the value of the debt being extinguished and the counterpart claim or funds provided is classified as *debt reduction*.⁹ This includes cases where the buyback of debt is by a third party, such as a nongovernmental organization or a corporation, which then sells the debt back to the debtor at a discount, under a deal that is arranged under a bilateral arrangement between debtor and government creditor.

8.35 In other cases, replacing a debt instrument with another type of claim may only be the recognition of reality. In other words, and particularly for marketable instruments, the price at which the debtor is willing to repurchase the debt may be greater than the price at which the debt previously traded. So, if the creditor purchased the security at the lower market price, the creditor might be making a holding gain.

8.36 The *Guide* recommends that in measuring and presenting data on debt reduction from such transactions, a distinction is made between (1) collaborative arrangements arising from discussions between the creditor(s) and debtor; and (2) buybacks that are initiated by the debtor through purchases in the secondary market. When buybacks arise from collaborative arrangements, any difference between the value of the counterpart claims (or assets) provided by the debtor and the nominal amount bought back

should be recorded as *debt reduction* in Table 8.1. Debt reduction arising from buybacks in the secondary market initiated by the debtor should not be recorded as *debt reduction* in the table.

8.37 For both public and private sector transactions, if external debt and the counterpart claims (or assets) are denominated in different currencies, any debt reduction should be determined using the market exchange rate between the two currencies prevailing on the transaction date (the midpoint between the buying and selling spot rates).

Presentation of Data on Debt Reduction

8.38 In Table 8.1, as far as possible, economies should present information on *debt reduction* according to the sector of the debtor (public-sector-based approach), and by type of creditor. Additionally, the table captures information on debt reduction arising from debt reorganization of bonds and notes.

8.39 Also, data could be presented by type of debt reorganization under which the debt reduction was given: (1) debt rescheduling; (2) debt forgiveness; and (3) debt conversion and debt prepayments. Where a debt-relief package includes elements of more than one type, separately identifying each type is encouraged. For example, if a part of the debt is to be repaid for cash, a prepayment should be recorded; if part of the debt is cancelled, debt forgiveness should be recorded; if the repayment terms of part of the debt are changed, a debt rescheduling should be recorded. But if it is not possible to provide separate identification, all debt reduction should be included along with the dominant type of reorganization in the package.

8.40 In Table 8.1, debt reduction should be recorded at the time when the external debt is reduced. If all debt reduction occurs at one time, debt reduction should be recorded at that time rather than when the debt-service payments would have fallen due. However, it is recognized that national practices may differ in this regard, and if the latter approach is followed, it should be recorded in a note to the presentation of the debt-reduction data.

8.41 Debt reorganization might also be phased over a period of time, such as under multiphase contracts,

⁹In the DAC system it is classified as debt forgiveness, and in the DRS it is classified as debt reduction.

performance-related contracts, and when debt reduction is dependent on contingent events. In such circumstances, debt reduction is recorded when the change in debt-service payment schedule of the debtor takes effect—for instance, if debt reduction occurs when the debt-service payments fall due, then this is the time when the debt reduction is recorded.

8.42 As noted above, the exchange rate used to calculate debt reduction should be the market rate on the transaction date (the midpoint between the buying and selling spot rates).

8.43 It is recommended that methodological notes accompany the presentation of debt-reduction statistics. *Inter alia*, these notes should cover each type of debt reorganization.

8.44 In Table 8.1, debt reduction is measured only in nominal value terms. This is because the analytical usefulness of presenting debt-reduction data in market-value terms is uncertain. For instance, when an economy faces payment difficulties (which is systematically the case when the country receives debt reduction), its debt is generally valued at a deep discount, since the market is still uncertain about the prospects of payment. In such circumstances, debt reorganization can result in the new debt having a higher value than the old debt. Similarly, in most cases (and in all multilateral agreements, such as those of the Paris Club or the London Club—see Box 8.1—or the HIPC Initiative), debt relief aims to restore the creditworthiness of the debtor country, thus increasing the possibility of repayment of existing debts and hence raising their market value. While there may be analytical interest in measuring the effect of debt reorganization on the value of outstanding debt—that is, the amount by which the market value rises—changes in the nominal amount outstanding rather than the market value is the preferred approach to measuring debt reduction arising from debt reorganization.

Other Transactions Relating to Debt Reorganization

Debt Assumption

8.45 Debt assumption is a trilateral agreement between a creditor, a former debtor, and a new debtor under which the new debtor assumes the for-

mer debtor's outstanding liability to the creditor and is liable for repayment of the debt.

8.46 Debt assumption is recorded—in the transaction and position data—when the creditor invokes the contract conditions permitting a guarantee to be called. If debt assumption arises under other circumstances, it is recorded when the liability is actually removed from the debtor's balance sheet, and the corresponding entries made in the new debtor's balance sheet, and not necessarily the time when agreement was reached to make the debt assumption. The recording by the entity assuming the debt has to be made in one time period: the successive dates of repayment previously foreseen in the context of the former debt are not relevant.

8.47 After it has been assumed, the debt, which was originally a liability of the former debtor, becomes a liability of the new debtor. The debt may carry the same terms as the original debt, or new terms may come into force because the guarantee was invoked. If the original and new debtors are from different institutional sectors, the external debt of the institutional sector of the original debtor is reduced, and the external debt of the institutional sector of the new debtor increased. The amount to be recorded by the new debtor is the full amount of the outstanding debt that is assumed. No debt reduction is recorded, unless there is an agreement with the creditor to reduce the external debt.

8.48 An example of debt assumption could be a government taking over the debts of a corporation. If, in such an example, the government acquires a financial claim on the corporation as a consequence of the debt assumption, the corporation will need to record a new debt liability, which is classified as external debt only if the government and corporation are residents of different economies. Every transfer of liabilities between a quasi-corporation and its owner is reflected in the value of its equity stake.

8.49 Rather than assume the debt, a government may decide to repay a specific borrowing or make a specific payment on behalf of another institutional unit, without the guarantee being called or the debt being taken over. In this case, the debt stays recorded solely in the balance sheet of the other institutional unit, the only legal debtor. If a new liability is created in the form of a government claim on the debtor, this is classified as external debt only if the

government and other institutional unit are residents of different economies (and the debtor is not a quasi-corporation of the government).

Borrowing for Balance of Payments Support

8.50 Borrowing for balance of payments support refers to borrowing (including bond issues) by the government or central bank (or by other sectors on behalf of the authorities) to meet balance of payments needs.¹⁰ In the external debt statement, unlike the analytical presentation of the balance of pay-

¹⁰A balance of payments need is defined more fully in paragraphs 451 through 453 of *BPM5*.

ments, no special “below-the-line” recording of these borrowings or their advance repayment is required.

New Money Facilities

8.51 Some debt-reorganization packages feature new money facilities (new loan facilities that may be used for the payment of existing debt-service obligations). In the gross external debt position, outstanding drawings by the debtor on new money facilities are usually recorded under *long-term loans*. If the existing debt liabilities remain outstanding, they should continue to be reported in the gross external debt position, until they are repaid. New money facilities are not to be recorded as debt reduction.

9. Contingent Liabilities

Introduction

9.1 The financial crises of the 1990s highlighted the shortcomings of conventional accounting systems in capturing the full extent of financial exposures arising from traditional “off-balance-sheet” obligations, such as contingent liabilities, and from financial derivatives contracts. The discovery of the magnitude and role of these obligations in these crises reinforced the need to monitor them. This chapter focuses on contingent liabilities.¹ Guidelines for monitoring financial derivatives positions were provided earlier in the *Guide*.

9.2 Contingent liabilities are complex arrangements, and no single measurement approach can fit all situations; rather, comprehensive standards for measuring these liabilities are still evolving. Indeed, experience has shown that contingent liabilities are not always fully covered in accounting systems. Nonetheless, to encourage the monitoring and measurement of contingent liabilities, with a view to enhancing transparency, this chapter provides some measurement approaches, after first defining contingent liabilities and then providing some reasons for their measurement. More specifically, also provided is a table for the dissemination of external debt data on an “ultimate risk” basis; that is, adjusting residence-based external debt data for certain cross-border risk transfers.

Definition

9.3 Contingent liabilities are obligations that arise from a particular, discrete event(s) that may or may not occur. They can be explicit or implicit. A key aspect of such liabilities, which distinguishes them from current financial liabilities (and external debt),

is that one or more conditions or events must be fulfilled before a financial transaction takes place.

Explicit Contingent Liabilities

9.4 Explicit contingent liabilities are those defined by the *1993 SNA* as contractual financial arrangements that give rise to conditional requirements—that is, the requirements become effective if one or more stipulated conditions arise—to make payments of economic value.² In other words, explicit contingent liabilities arise from a legal or contractual arrangement. The contingent liability may arise from an existing debt—such as an institution guaranteeing payment to a third party; or arise from an obligation to provide funds—such as a line of credit, which once advanced creates a claim; or arise from a commitment to compensate another party for losses—such as exchange rate guarantees. Some of the more common explicit contingent liabilities are set out below.

Loan and other payment guarantees

9.5 Loan and other payment guarantees are commitments by one party to bear the risk of nonpayment by another party. Guarantors are only required to make a payment if the debtor defaults. Some of the common types of risks that are assumed by guarantors are commercial risk or financial performance risk of the borrower; market risk, particularly that arising from the possibility of adverse movements in market variables such as exchange rates and interest rates; political risk, including risk of currency inconvertibility and nontransferability of payments (also called transfer risk), expropriation, and political violence; and regulatory or policy risk, where implementation of certain laws and regulations is critical

¹This chapter draws on work at the World Bank.

²The *European System of Accounts: ESA 1995* (Eurostat, 1996) defines contingent liabilities in a similar way.

to the financial performance of the debtor.³ Loan and other payment guarantees usually increase the initial debtor's access to international credit markets and/or improve the maturity structure of borrowing.

Credit guarantees and similar contingent liabilities

9.6 Lines of credit and loan commitments provide a guarantee that undrawn funds will be available in the future, but no financial liability/asset exists until such funds are actually provided. Undrawn lines of credit and undisbursed loan commitments are contingent liabilities of the issuing institutions—namely, banks. Letters of credit are promises to make payment upon the presentation of prespecified documents.

Contingent “credit availability” guarantees or contingent credit facilities

9.7 Underwritten note issuance facilities (NIFs) provide a guarantee that a borrower will be able to issue short-term notes and that the underwriting institution(s) will take up any unsold portion of the notes. Only when funds are advanced by the underwriting institution(s) will an actual liability/asset be created. The unutilized portion is a contingent liability.

9.8 Other note guarantee facilities providing contingent credit or backup purchase facilities are revolving underwriting facilities (RUFs), multiple options facilities (MOFs), and global note facilities (GNFs). Bank and nonbank financial institutions provide backup purchase facilities. Again, the unutilized amounts of these facilities are contingent liabilities.

Implicit Contingent Liabilities

9.9 Implicit contingent liabilities do not arise from a legal or contractual source but are recognized after a condition or event is realized. For example, ensuring systemic solvency of the banking sector might be viewed as an implicit contingent liability of the central bank.⁴ Likewise, covering the obligations of sub-

national (state and local) governments or the central bank in the event of default might be viewed as an implicit contingent liability of the central government. Implicit contingencies may be recognized when the cost of not assuming them is believed to be unacceptably high.⁵ Table 9.1 provides a practical way of classifying the types of potential liabilities of the central government.

9.10 Although implicit contingent liabilities are important in macroeconomic assessment, fiscal burden, and policy analysis, implicit contingent liabilities are even more difficult to measure than explicit contingent liabilities. Also, until measurement techniques are developed, there is a danger of creating moral hazard risks in disseminating information on implicit contingent liabilities of the type set out in Table 9.1. Thus, the rest of this chapter focuses only on the measurement of explicit contingent liabilities.

Why Measure Contingent Liabilities?

9.11 By conferring certain rights or obligations that may be exercised in the future, contingent liabilities can have a financial and economic impact on the economic entities involved. When these liabilities relate to cross-border activity, and they are not captured in conventional accounting systems, it can be difficult to accurately assess the financial position of an economy—and the various institutional sectors within the economy—vis-à-vis nonresidents.

9.12 Analysis of the macroeconomic vulnerability of an economy to external shocks requires information on both external debt obligations and contingent liabilities. Experience has shown that contingent liabilities are not always fully covered in accounting systems. Moreover, there is an increasing realization, when assessing macroeconomic conditions, that contingent liabilities of the government and the central bank can be significant. For example, fiscal contingent claims can clearly have an impact on

³Regulatory or policy-based guarantees are especially relevant in infrastructure financing. For more details and country-specific examples, see Irwin and others (1997).

⁴A case in point is Indonesia, where the government's domestic debt increased from practically nothing, in the period before the crisis (mid-1997), to 500 trillion Indonesian rupiah by the end of

1999, mostly due to the issuance of bonds to recapitalize the banking system. The increase in the government's stock of domestic debt was accompanied by a rise in its assets, which were received in exchange for issuing bank-restructuring bonds. See also Blejer and Shumacher (2000).

⁵See *Guidelines for Public Debt Management* (IMF and World Bank, 2001).

Table 9.1. Fiscal Risk Matrix with Illustrative Examples

Liabilities ¹	Direct (obligation in any event)	Contingent (obligation if a particular event occurs)
Explicit Government liability as recognized by a law or contract	<ul style="list-style-type: none"> • External and domestic sovereign borrowing (loans contracted and securities issued by central government) • Budgetary expenditures • Budgetary expenditures legally binding in the long term (civil servants' salaries and pensions) 	<ul style="list-style-type: none"> • Central government guarantees for nonsovereign borrowing and obligations issued to subnational governments and public and private sector entities (development banks) • Umbrella central government guarantees for various types of loans (mortgage loans, student loans, agriculture loans, small business loans) • Trade and exchange rate guarantees issued by the central government • Guarantees on borrowing by a foreign sovereign government • Central government guarantees on private investments • Central government insurance schemes (deposit insurance, income from private pension funds, crop insurance, flood insurance, war-risk insurance)
Implicit Obligations that may be recognized when the cost of not assuming them could be unacceptably high	<ul style="list-style-type: none"> • Future public pensions (as opposed to civil service pensions) • Social security schemes • Future health care financing • Future recurrent cost of public investments 	<ul style="list-style-type: none"> • Default of subnational government, and public entity on nonguaranteed debt and other obligations • Liability cleanup in entities under privatization • Banking failure (support beyond state insurance) • Investment failure of a nonguaranteed pension fund, employment fund, or social security fund (social protection of small investors) • Default of central bank on its obligations (foreign exchange contracts, currency defense, balance of payment stability) • Bailouts following a reversal in private capital flows • Environmental recovery, disaster relief, etc.

Source: Adapted from Polackova Bixi (1999).

¹The liabilities listed refer to the fiscal authorities, not the central bank.

budget deficits and financing needs, with implications for economic policy. Recognizing the implications of contingent liabilities for policy and analysis, the *1993 SNA* (paragraph 11.26) states:

Collectively, such contingencies may be important for financial programming, policy, and analysis. Therefore, where contingent positions are important for policy and analysis, it is recommended that supplementary information be collected and presented. . . .

Measuring Contingent Liabilities

9.13 Contingent liabilities give rise to obligations that may be realized in the future, but because of their complexity and variety, establishing a single method for measuring them may not be appropriate. Several alternative ways of measuring contingencies are outlined below. The relevance of each will depend on the type of contingency being measured, and the availability of data.

9.14 A first step in accounting for contingent liabilities is for economic entities to record all such contingent liabilities as they are created, such as with an accrual-based reporting system. But how should such liabilities be valued? One approach is to record these liabilities at full face value or maximum potential loss. Thus, a guarantee covering the full amount of a loan outstanding would be recorded at the full nominal value of the underlying loan. Some governments have adopted this approach. For example, the New Zealand government routinely publishes the maximum potential loss to the government of quantifiable and nonquantifiable contingent liabilities,⁶ including guarantees and indemnities, uncalled capital to international institutions, and potential settlements related to legal proceedings and disputes.

⁶New Zealand Treasury, *Budget Economic and Fiscal Update* (Wellington, annual). As the name suggests, nonquantifiable contingent liabilities cannot be measured and arise from either institutional guarantees that have been provided through legislation or from agreements and arrangements with organizations.

9.15 Likewise, the Australian government identifies quantifiable and nonquantifiable contingencies.⁷ In addition, it identifies “remote” contingent losses (mostly guarantees), including nonquantifiable “remote” contingencies. The Indian government regularly reports the direct guarantees provided by the central government on external borrowings of public sector enterprises, development financial institutions, and nonfinancial private sector corporations.⁸ The guarantees are presented by sector and at nominal value.

9.16 The maximum potential loss method has an obvious limitation: there is no information on the likelihood of the contingency occurring. Especially for loan and other payment guarantees, the maximum potential loss is likely to exceed the economic value of the contingent liability because there is no certainty that a default will occur (that is, the expected probability of default is less than unity). Theoretically, a better approach is to measure both the maximum possible loss and the expected loss, but calculating the expected loss requires estimating the likelihood of losses, which can be difficult.

9.17 Several alternative methods of valuing the expected loss exist. These range from relatively simple techniques requiring the use of historical data, to complex options-pricing techniques. The actual approach adopted will depend on the availability of information and the type of contingency. If the expected loss can be calculated, an additional approach is to value this loss(es) in present-value terms—expected present value. In other words, since any payment will be in the future and not immediate, the expected future payment streams could be discounted using a market rate of interest faced by the guarantor; that is, the present value. As with all present-value calculations, the appropriate interest rate to use is crucial; a common practice with government contingent liabilities is to use a risk-free rate like the treasury rate. Under this present-value approach, when a guarantee is issued the present value of the expected cost of the guarantee could be recorded as an outlay or expense (in the operating account) in the current year and included in the position data, such as a balance sheet.

⁷*Aggregate Financial Statement* (Australia, annual).

⁸See the Ministry of Finance’s annual publication on external debt, *India’s External Debt: A Status Report*.

9.18 Exact valuation requires detailed market information, but such information is often unavailable. This is particularly true in situations of market failure or incomplete markets—a financial marketplace is said to be complete when a market exists with an equilibrium price for every asset in every possible state of the world. Other means are then required to value a contingency. One possibility is to use historical data on similar types of contingent operations. For example, if the market price of a loan is not observable, but historical data on a large number of loan guarantees and defaults associated with those guarantees are available, then the probability distribution of the default occurrences can be used to estimate the expected cost of a guarantee on the loan. This procedure is similar to that employed by the insurance industry to calculate insurance premiums. Rating information on like entities is often used to impute default value on loan guarantees as well. The U.S. Export-Import Bank employs this method for valuing loan guarantees that it extends.

9.19 Bank regulatory guidelines established by the Basel Committee on Banking Supervision also draw on historical data to measure risks in banks’ off-balance-sheet activities. For traditional off-balance-sheet items like credit contingent liabilities, the guidelines provide “credit conversion factors,” which when multiplied with the notional principal amount provide an estimate of the expected “payout” from the contingent liability. The conversion factors are derived from the estimated size and likely occurrence of the credit exposure, as well as the relative degree of credit risk. Thus, stand-by letters of credit have a 100 percent conversion factor; the unused portion of commitments with an original maturity of over one year is 50 percent; and RUFs, NIFs, and similar arrangements are assigned a 50 percent conversion factor as well.

9.20 Market-value measures use market information to value a contingency. This methodology can be applied across a wide range of contingent liabilities, but it is particularly useful for valuing loan and other payment guarantees, on which the following discussion focuses. This methodology assumes that comparable instruments with and without guarantees are observable in the market and that the market has fully assessed the risk covered by the guarantee. Under this method, the value of a guarantee on a financial instrument is derived as the difference between the price of the instrument without a guar-

antee and the price inclusive of the guarantee. In the context of a loan guarantee, the nominal value of the guarantee would be the difference between the contractual interest rate (ip) on the unguaranteed loan and the contractual interest rate (ig) on the guaranteed loan times the nominal value of the loan (L): $(ip - ig)L$. The market value of the guarantee would use market, not contractual, rates.⁹

9.21 Yet another approach to valuing contingent liabilities applies option-pricing techniques from finance theory. With this method, a guarantee can be viewed as an option: a loan guarantee is essentially a put option written on the underlying assets backing the loan.¹⁰ In a loan guarantee, the guarantor sells a put option to a lender. The lender, who is the purchaser of the put option, has the right to “put” (sell) the loan to the guarantor. For example, consider a guarantee on a loan with a nominal value of F and an underlying value of V . If $V - F < 0$, then the put option is exercised and the lender receives the exercise price of F . The value of the put option at exercise is $F - V$. When $V > F$, the option is not exercised. The value of the guarantee is equivalent to the value of the put option. If the value of the credit instrument on which a guarantee is issued is below the value at which it can be sold to the guarantor, then the guarantee will be called.

9.22 Although the option-pricing approach is relatively new and sophisticated, it is being applied in the pricing of guarantees on infrastructure financing and interest and principal payment guarantees.¹¹ But standard option pricing has its limitations as well. This is because the standard option-pricing model assumes an exogenous stochastic process for underlying asset prices. However, it can be argued that the very presence of a guarantee (especially a government guarantee) can affect asset prices.¹²

Recommended Measures

9.23 The *Guide* encourages the measurement and monitoring of contingent liabilities, especially of guarantees, and has outlined some measurement tech-

niques. However, it is recognized that comprehensive standards for measuring contingent liabilities are still evolving. Consequently, only the recording of a narrow, albeit important, range of contingent liabilities is specified ahead: guarantees of domestic private sector external debt by the public sector, and the cross-border provision of guarantees. In both instances, it is recommended that the contingency should be valued in terms of the maximum exposure loss.

Public sector guarantees

9.24 In Chapter 5 the dissemination of data on publicly guaranteed private sector debt—that is, the value of private sector debt that is owed to nonresidents, and is guaranteed by the public sector—through a contractual arrangement is discussed.

Ultimate risk

9.25 Set out in Table 9.2 is a format that presents external debt according to an “ultimate” risk concept—augmenting residence-based data to take account of the extent to which external debt is guaranteed by residents for nonresidents. Countries could potentially have debt liabilities to nonresidents in excess of those recorded as external debt on a residence basis if their residents provide guarantees to nonresidents that might be called. Also, branches of domestic institutions located abroad could create a drain on the domestic economy if they ran into difficulties and their own head offices needed to provide funds.

9.26 In Table 9.2 residence-based external debt data (column 1) is increased by the amount of debt of nonresidents, not owned by residents, that is guaranteed by a resident entity (inward risk transfer, column 2). Column 3 is the adjusted external debt exposure of the economy. The table is set out in this manner so that external debt on an ultimate-risk basis can be related back to the gross external debt position measured on a residence basis.

9.27 The intention of column 2 is to measure any additional external debt risk exposures of residents arising from contingent liabilities. The definition of contingent liabilities adopted is deliberately narrow. To be included in this definition of contingent liabilities, the debt must exist, so lines of credit and similar potential obligations are not included. The data on the inward transfer of risk covers only the debt of

⁹For a further discussion of market-value methods see Towe (1990) and Mody and Patro (1996).

¹⁰Robert C. Merton (1977) was the first to show this.

¹¹See Irwin and others (1997) and Borensztein and Pennacchi (1990).

¹²See Sundaresan (2002) for a detailed exposition on this issue.

Table 9.2. Gross External Debt Position: Ultimate Risk Basis

	End-Period			<i>Memorandum item:</i> Outward risk transfer (4)
	Gross External Debt (1)	Inward risk transfer (+) (2)	External Debt (ultimate-risk basis) (3)	
General Government				
Short-term				
Money market instruments				
Loans				
Trade credits				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Trade credits				
Other debt liabilities ¹				
Monetary Authorities				
Short-term				
Money market instruments				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Banks				
Short-term				
Money market instruments				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Other Sectors				
Short-term				
Money market instruments				
Loans				
Currency and deposits ²				
Trade credits				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Currency and deposits ²				
Trade credits				
Other debt liabilities ¹				

Table 9.2 (concluded)

	End-Period			Memorandum item: Outward risk transfer (4)
	Gross External Debt (1)	Inward risk transfer (+) (2)	External Debt (ultimate-risk basis) (3)	
Other Sectors (continued)				
Nonbank financial corporations				
Short-term				
Money market instruments				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Currency and deposits ²				
Other debt liabilities ¹				
Nonfinancial corporations				
Short-term				
Money market instruments				
Loans				
Trade credits				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Trade credits				
Other debt liabilities ¹				
Households and nonprofit institutions serving households (NPISH)				
Short-term				
Money market instruments				
Loans				
Trade credits				
Other debt liabilities ¹				
Arrears				
Other				
Long-term				
Bonds and notes				
Loans				
Trade credits				
Other debt liabilities ¹				
Direct Investment: Intercompany Lending				
Debt liabilities to affiliated enterprises				
Arrears				
Other				
Debt liabilities to direct investors				
Arrears				
Other				
Gross External Debt				

¹Other debt liabilities are other liabilities in the IIP statement.

²It is recommended that all currency and deposits be included in the short-term category unless detailed information is available to make the short-term/long-term attribution.

a nonresident to a nonresident on which, and as part of the agreement between debtor and creditor, payments are guaranteed to the creditor(s) by a resident entity under a legally binding contract—the guarantor will most commonly be an entity that is related to the debtor (for example, the parent of the debtor entity), and debt of a legally dependent nonresident branch of a resident entity that is owed to a nonresident. If debt is partially guaranteed, such as if principal payments or interest payments alone are guaranteed, then only the present value of the amount guaranteed should be included in columns 2 or 4. To avoid double counting the same external debt risk exposure, the following should be excluded from column 2: all debt liabilities of nonresident branches to other nonresident branches of the same parent entity; and any amounts arising from external debt borrowings of nonresidents that were guaranteed by a resident entity and on-lent by the nonresident borrower to that same resident entity or any of its branches. This guidance is not intended to exclude debt exposures of residents from the ultimate risk concept, as defined above, but to ensure that they are counted only once.

9.28 External debt is the liability of the debtor economy. However, as a memorandum item, the amount

of external debt of the economy that is guaranteed by nonresidents is also presented (outward risk transfer, column 4). The data on the transfer of risk outward covers only external debt on which, and as part of the agreement between debtor and creditor, payments are guaranteed (or partially guaranteed) to the creditor(s) by a nonresident under a legally binding contract—the guarantor will most commonly be an entity that is related to the debtor (for example, the parent of the debtor entity)—and external debt of a resident entity that is a legally dependent branch of a nonresident entity.

9.29 No reallocation of risk is made because of the provision of collateral by the debtor, or because a debt instrument is “backed” by a pool of instruments or streams of revenue originating from outside of the economy. Because the intention of Table 9.2 is to monitor the potential risk transfer from the debtor side, no reallocation of risk is made if the risk transfer is initiated from the creditor side, without any involvement of the debtor—for example, the creditor has paid a premium to a guarantor, such as an export credit agency unrelated to the debtor, to insure against payment default or has purchased a credit derivative that transfers credit risk exposure.